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ABSTRACT

Noting that adult illiteracy is a problem in Nevada, this report assesses adult literacy programs and needs for the State of Nevada by examining the issues and surveying state funded and volunteer literacy programs as well as all public school districts. An executive summary presents (1) the extent of the illiteracy problem; (2) ramifications of the problem as it affects employers and employees; (3) the effectiveness of existing volunteer programs and educational programs; and (4) long- and short-range goals for Nevada's literacy program. The first section gives a perspective on the difficulty Nevada should expect in estimating and serving adult illiterates. The second section provides illiteracy estimates for Nevada county by county. The third and fourth sections address the charge to study existing programs with a national perspective provided, followed by the survey results. The fourth section summarizes what is known about the relationship between economic and employer needs and literacy. The report closes with a series of specific recommendations, some related to action and some to broad concepts. Three pages of references and five appendixes, which include population parameters, sample survey questionnaires, and recommendations, are attached. (NH)

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PROJECT TACL: A TEAM APPROACH TO COMMUNITY LITERACY

LITERACY NEEDS ASSESSMENT

PREPARED FOR THE NEVADA LITERACY COALITION

BY

Donald R. Bear, Ph.D.
Cliff Ferry, Ph.D.
Shane Templeton, Ph.D.
Center for Learning and Literacy
Department of Curriculum and Instruction
College of Education
University of Nevada-Reno

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LITERACY NEEDS ASSESSMENT

EXECUTIVE SUMMARY

1. Adult illiteracy is clearly a problem in the State of Nevada and the nation, though the extent and degree of seriousness is open to some debate. Illiteracy has diverse ramifications: inability of a person to complete a job application or to meet citizen responsibilities and consumer needs, decreased self-esteem of illiterate individuals, an increasing underclass that contains a high percentage of individuals lacking literacy skills, and an effect--though ill-defined-upon the nation's productivity. Literacy doesn't quarantee a job, create informed voters and wise consumers, or single-handedly make the economy more productive. But it is obviously an important factor.

2. It is estimated that 9% of the adult Nevada population is functionally illiterate. Using 1986 population estimates, this percentage translates to approximately 67,000 persons over 20. The 9% figure was taken from a study conducted by the National Institute of Education and the U.S. Bureau of the Census. Procedures from this 1986 study were then applied to Nevada counties with a resulting range of estimated illiteracy rates from 5.5% to 16% among the counties.

The estimates are based on population variables that the NIE study found to be correlated with illiteracy: number of years of school, recency of immigration to this country, English speaking ability of persons who speak a language other than English in the home, ethnic-black, persons age 60+, and persons 22 and over who live below the poverty level.

3. In studies of national illiteracy rates in the past 15 years, the estimates have varied from 13% to 20% to nearly 40% of the adult population. These disparities largely result from different views of what minimal or functional literacy is and how it is to be measured. Most recently, the on-going National Assessment of Educational Progress (NAEP) has reported that 97% of young adults 18 - 25 years of age have attained basic comprehension skills. This means, for example, that a high percentage of young adults can locate a single piece of information in an article of moderate length and find the expiration date on a driver's license. The question of whether such skills constitute functional literacy is open. Also, the study is valid only for young adults. The 1987 NAEP study concludes that a small percentage of young adults can reason effectively about what they read or write.

4. Employers rate literacy deficits as a significant barrier for employment and a problem for current employees. A 1986 survey of Nevada employers conducted by the UNR College of Education for the State Department of Education found that over 75% of the employers said that lack of reading and/or math skills was a barrier for job applicants. Over half of the employers said that the lack of skills was a problem for current employees. Communication and inter-personal skills were also rated as barriers and problems. Although these percentages are undoubtedly influenced by the number of non-native speakers of English employed in Nevada, the study confirms what employers have been saying for a long time about literacy levels of applicants and workers.

5. Over half of the employers in the UNR study said that new jobs would be created in the foreseeable future, many requiring specialized training--training that requires literacy skills. Donald Kearns, Chairman and CEO of Xerox Corporation estimates that by 1990 three out of four jobs will require some type of training after high school. The present standards for literacy will not enable individuals to succeed in many jobs of the future. Information in electronic form (computers) will widen the gap on literacy.

6. The societal costs that are frequently associated with illiteracy (unemployment, crime, welfare, etc.) are, however, somewhat misleading. If illiteracy were eliminated overnight, jobs would not suddenly appear for the newly literate. Job creation is a function of economic forces. Increasing overall literacy of a population generally results in higher standards for employment.

7. The costs of illiteracy to individuals are great: limited opportunity for employment and promotion, fear of being discovered for those illiterate individuals who are "hidden in the workplace," reliance upon others for information that is available in print, difficulty in participating in the mainstream culture, etc. In addition to costs to individuals, society faces an underclass population of the poor and ethnic minorities who have higher rates of illiteracy than the rest of the population and who, in the coming decades, will make up a larger percentage of the workforce because of immigration and a higher birthrate than the middle class population.

8. Basic literacy (primarily reading instruction) and English as a Second Language (ESL) programs for adults in Nevada are conducted by public-funded programs (largely the federal ABE monies) through community colleges and schools and through various volunteer groups concentrated in Washoe and Clark counties. Sierra Nevada Job Corps in Stead conducts literacy programs for a significant number of young adults. About 80% of the students in federally funded ABE programs are ESL students.

9. According to a May, 1987, survey of Nevada literacy organizations, approximately 2800 adults are currently enrolled in literacy and ESL programs, and over 60% were ESL students. Approximately 550 tutors are trained to work with adults, and 135 part-time teachers are employed. In the past year or two there has been a significant increase in the number of trained tutors among the volunteer groups in the state as well as an upsurge in activity and reorganization of some of the groups. ABE programs are increasingly using volunteers to assist instructors in these programs.

10. It is difficult to evaluate the effectiveness of literacy programs in Nevada or elsewhere. Hard data on reading gains, for example, are not generally available, although one community college reported an average reading gain of 1.1 years for students during a program year. Job Corps reports a similar gain.

Literacy programs that returned surveys typically report effectiveness in terms of adult students gaining confidence in themselves and their reading skills. These are tremendously important outcomes, but they do not give a full picture of program effectiveness. Students in ESL programs do improve their English language skills, which enables many of them to continue their educations. Information on adults in literacy programs mainly anecdotal. Adult literacy programs, with the diverse needs of students and open entry/exit enrollment, do not have the structure found in school programs. It is difficult, for example, to assess progress and track hours of instruction. The commitment, enthusiasm, and sense of mission of literacy workers in Nevada is readily apparent.

11. Both volunteer and public-supported programs, selecting from a list of various program needs, ranked recruitment of students ("more effective ways to reach adult illiterates") as the greatest need. Additional training for volunteers was the second greatest need identified by volunteer groups, and additional professional teachers was ranked the second greatest need by public-supported programs. Additional volunteers was ranked third as a "strong need" by all organizations.

In an open response format, the programs identified improved administrative procedures as a major need (e.g., coordination of students and tutors and record keeping). Retention of students, stable funding, and computer-assisted instruction were also mentioned as needs in program improvement.

12. Long and short range goals for Nevada literacy programs concentrated on expansion. Goals included increasing numbers of volunteer tutors, adults served, sites offering instruction, and hours available for literacy service.

13. Smaller class size and in-service training for teachers were most frequently mentioned in a survey returned by eleven Nevada county school districts. Alternative programs and greater emphasis and accountability in content area reading were also suggested. Other suggestions included reading as a required high school course, providing reading materials to homes, and expansion of remedial/developmental reading programs.

Though Nevada's third and sixth graders do score higher on the Standford Achievement Test (SAT) than the national norm, the 1985/86 test results show nearly 800 Grade 3 and 1000 Grade 6 students whose reading scores indicate they are "at risk." These young people are quite likely to be functionally illiterate by age 18 unless substantial intervention occurs.

It is quite likely, also, that the recent National Association of Educational Progress (NAEP) reports apply to Nevada's young people. These reports say that a very small percentage of students and young adults through age 25 can reason effectively about what they read and write.

There appears to be a fairly strong correlation between a county's illiteracy ranking and the percentage of third and sixth graders whose scores fall into the bottom three stanines of the 1985/86 SAT testing.

14. There are over 67,000 estimated adult illiterates in Nevada. Approximately 2800 are currently being served. As uncertain as illiteracy estimates may be, it is clear that a very large number of illiterates are not being served in Nevada.

June, 1987

FOREWARD

In May, 1987, the Center of Learning and Literacy was contracted by the Nevada Literacy Coalition, a statewide group funded by Gannett, to assess adult literacy programs and needs. Over a two-month period, the center examined the issues and surveyed state funded and volunteer literacy programs as well as all public school district.

The following report summarizes the Center's research and findings. The report begins with an overview which gives a perspective on the difficulty Nevada should expect in estimating and serving adult illiterates. The second section provides illiteracy estimates for Nevada by county. The third and fourth sections address the charge to study existing programs. Again, a national perspective is provided, followed by the results of the surveys. Section V. summarizes what we know about the relationship between economic and employer needs and literacy. The report closes with a series of specific recommendations, some of which have a conceptual orientation.

This report represents a beginning, a starting point. We know that the Literacy Coalition of Nevada will take the lead in helping Nevadans make some hard decisions regarding the commitments necessary to help all Nevadans to become literate. We would like to thank Bonnie Buckley and Jerry Neilsen, George Barnes, Cookie Moulton, and Pat Deadder for their support, and assistance, and the many people who responded to our surveys and requests for information. While gratefully acknowledging their assistance, we retain full responsibility for the report's contents.

Donald R. Bear, Ph.D.
Cliff Ferry, Ph.D.
Shane Templeton, Ph.D.
Center for Literacy and Learning
Department of Curriculum and Instruction
College of Education
University of Nevada-Reno

I. ADULT LITERACY OVERVIEW: DEFINITIONS, ISSUES, AND NUMBERS

This overview will describe the issues pertaining to adult literacy and illiteracy--the definitions, social ramifications, measurements of literacy, and the wide-open field of estimating the number of functionally illiterate adults in the United States. There has been a great deal of interest in adult illiteracy in the past 15 years, which has been publicly and nationally intensified in the past 3-4 years by President Reagan's literacy initiative, the on-going National Assessment Educational Progress studies, and to some extent the national school reform movement spawned by A Nation at Risk (1984).

Reading is not just a matter of learning to decode print into language, of knowing your "letters." Reading and language experts now think of the reading process as one of "constructing" meaning from written text. The meaning is constructed within the mind of the reader (i.e., does not exist independently of a reader) using knowledge of language and alphabet, basic decoding skills, background knowledge of the topic, and mental processing skills. Moreover, there is an important social and cultural significance to literacy. Literacy, as Kenneth Levine (1982) philosophically points out, involves the social distribution of knowledge. In a technological, highly literate culture, literacy not only is a tool for surviving and finding success, but it confers social status. E.D. Hirsch (1987) argues for a broad cultural conception of literacy, wherein the culturally literate person knows about the Beatles as well as laser beams and the Joad family. Knowing these cultural facts is not a trivial pursuit but essential for cultural literacy. Electronic words and pictures of the media have given our culture a new kind of oral tradition but they have not relegated the printed word to the archives.

Solutions to literacy "problems," then, go beyond the schools' programs in reading/writing instruction or adult literacy efforts.

It will help us to think about the topic and its dimensions, implications, and problems by considering several metaphors that recent writers have used to discuss literacy:

Vertical and Horizontal Metaphors of Literacy

In their recent survey, "Literacy and Reading Performance in the United States, from 1880 to the Present," Stedman and Kaestle (1987) distinguish between school reading for children and young people and adult reading demands outside the school. The vertical dimension in their metaphor is the school program, where literacy attainment is usually called reading achievement. This vertical dimension is highly structured, beginning in the primary grades or in pre-school, where children are introduced to the concepts of letters and printed works, sound/symbol correspondence: and highly controlled introduction of reading "skills." Students

moving upward in the hierarchy face more difficult reading tasks and gain more skill. Frequent testing, sequencing, and reliance on basal texts and common activities all characterize the structured, hierarchical program.

Literacy skills practiced in the adult world, on the other hand, are wide-ranging; much less hierarchical; and less structured. This is the horizontal dimension which includes a greater variety of reading tasks, broader range of settings, and more diverse reading purposes. In contrast to the concept of reading achievement, minimal competency in adult literacy is called functional literacy. It follows that it is more difficult to assess adult reading competence in all of the settings and contexts of its application. Stedman & Kaestle (1987) comment on their distinction between school and adult worlds of reading

> The metaphor is useful because the two dimensions penetrate each other: At any given grade-level ability of reading achievement, one can think of extending those skills horizontally out into non-school situations. Conversely, in any real world setting, one can ask how demanding the reading tasks are, on a vertical scale. (p.11)

The importance of the vertical and horizontal distinction is that it provides new perspective for school reading people as well as adult literacy educators. The most important implications of this perspective are:

> The school reading program is too structured, too concerned with testing, devoid of meaning to lead to effective instruction and learning, (Kenneth Cadenhead, 1987).
>
> Increase the variety of reading tasks for students in school, (Applebee, Langer, and Mullis, 1987).
>
> Use job related materials in literacy instruction for adults.
>
> Difficulties in defining functional literacy universally when individuals come to adult programs with diverse needs.

Improvement of adult literacy programs may parallel improvements in school reading programs and there may be a certain amount of cross-fertilization, but the horizontal and vertical demensions of reading will each call for solutions of their own.

Three Metaphors For Literacy

Another metaphorical approach useful for defining the

contexts of literacy in general and adult literacy in particular is offered by Sylvia Scribner (1984) in her article, "Literacy in Three Metaphors." In the following discussion her metaphors will allow an integration of current research literature. In a broader look at the implications of literacy, she subscribes three types of literacy: Literacy as Adaptation, Literacy as Power, and Literacy as a State of Grace.

Adaptation

Most discussions of literacy deal with Adaptation, which is essentially the utilitarian, pragmatic use of literacy skills in a technological society-- for the job, as a consumer, and for civic responsibilities.

Adult literacy programs are largely concerned with literacy as adaptation. This type of adaptation is perhaps best illustrated by the historic way that immigrants (or children of immigrants, mainly) learned English as an adaptation to their new home and adopted language. At an even more basic and obvious level, infants and young children naturally learn the language they are born into as a way of adapting to an environment. And, finally, the dominant purpose of school literacy programs--public education--is to enable persons to function productively in adult society.

Power

The second metaphor, Literacy as Power, refers to community-based efforts (usually on the part of sub-cultures) to participate more effectively in the society as a whole, not so much to adapt to the dominant culture, but to develop group identity and empowerment. It is an activist group effort, ethnically or politically motivated, in contrast to what is generally a solitary, personal effort in more conventional adult literacy programs.

Jonathan Kozol (1985) writes fervently of the need to mobilize nationally to fight illiteracy among the poor and the racial minorities, using the models of literacy efforts in Cuba, Nicaragua, along with Paulo Freire's work in Brazil: "We do not need another study. We do not need a new commission. We know exactly what needs to be done. We do not have the right to find retreat in earnest indecision. We have the obligation to take action." (p. 100) For example, two Paulo Freire institutes to be held during the summer of 1987 were recently advertised with the following invitation:

> We are interested particularly in attracting individuals who have wrestled with teaching centered on empowerment, critical consciousness, and action... Being literate is to critically know one's own condition and to act

on such knowledge, (Chronicle of Higher Education, 1987).

Hunter & Harman (1979) describe various community-based efforts that rely heavily on the illiterates' own organization and a careful look at their own personal and social needs, including literacy. The authors, in fact, state as their main recommendation for adult literacy improvement "the establishment of new, pluralistic, community-based initiatives whose specific objective will be to serve the most disadvantaged hard-core poor, the bulk of whom never enroll in any existing program," (p.103-4). However, they do not take the position of community power advocates who support "the total self-sufficiency and independence of those subgroups," (p.105). Rather, they believe the community approach is the only one that has a chance of attracting the hard-to-reach poor.

Similarly, Reder & Green (1985) recommend an approach termed "giving literacy away," in which formal literacy training programs could be substantially complemented by informal training activity in the illiterates' "own setting, peer networks and value systems rather than those of the service provider," (p.2).

State of Grace

Scribner's third metaphor, The State of Grace, focuses less on social empowerment and adaptation to a culture and more on the individual's personal needs. This metaphor takes on historical as well as contemporary religious implications. Only ancient scribes, for example, had access to the sacred texts; unlocking these works from the texts conferred a state of grace. Print became widespread with the invention of the printing press and the wider access to the Christian Bible, giving "grace" directly to the rapidly increasing number of literate people. Internationally and currently, the Laubach missionary literacy efforts enable thousands to read the Bible.

Scribner puts a secular stamp on this third use of literacy. Personal power, enjoyment, and fulfillment are potentially gained by anyone learning to read, particulary for the new readers among adults. Learning to read does, in fact, open new personal worlds. Adults usually display increased self-confidence and self-worth gained as they build on reading and writing skills even when skill progress is relatively limited. Learning to read does confer a kind of grace, which is a gift often forgotten by those of us who learned the basics of reading in the first and second grades.

The horizontal and vertical metaphors and the metaphors of adaptation, power, and grace lend a descriptive richness and insight to the issues, problems, and promise in approaching adult illiteracy.... Now we go to the numbers.

Measuring and Estimating Adult Illiteracy in The United States

A fundamental issue in literacy is defining what, percisely, literacy is, and establishing a level at which one is considered "literate." In the nineteenth century, being able to write and read one's own name was a sufficient mark of literacy. As late as 1930, census workers asked interviewees if they could read and write, and the reported reply was entered into the census. Stedman & Kaestle note that the term "functional literacy" was probably coined in the 1930's by the Civilian Conservation Corps and it referred to those who had completed at least three years of school.

The use of school attainment (number of years of school completed) became a measure of functional literacy. The Bureau of Census used 5 years of schooling in 1947, and 6 years in 1952. In 1960, the U.S. Office of Education determined that 8 years of school signalled the attainment of minimum functional literacy. Since then, the standards have continued to rise. There is an assumption that completing a certain number of years of school certifies a degree of literacy. Stedman & Kaestle comment: "This is a shaky generalization when applied to individual cases, but it seems reasonable to assume that a substantial increase in school attainment would raise the average reading ability of the population." (p. 23). Despite the fact that some high school graduates do not read at a functional level, statistically, high school graduates as a group will have better reading skills than non-high school graduates as a group.

Population statistics, however, are not helpful in determining the kinds of materials that adult readers need to be able to read, or how well they need to read them. In recent years, adult reading competency tests of various kinds have become more widely used. These utilize direct testing of a represenative sample of a population. The test results are then generalized to appropriate groups, age, cohorts and so forth.

Funded by the Office of Education in 1971, the Texas Adult Performance Level (APL) Project was a significant research attempt to measure real world literacy requirements and assess the adult population's literacy skills (Adult Functional Competency, 1975). The project was not without critics who saw various methodological and conceptual flaws. But it did put a research-based handle on the extent of illiteracy among adults and on the difficulites of studying literacy on the horizontal dimension.

The measurement of adult literacy competence is neither simple nor clearcut. To date, such efforts have lacked the structure and hierarchy of school reading measurement and achievement. Moreover, there are difficulties inherent in using reading level as a measure of reading achievement. There is undoubtedly a set of "adaptation" reading tasks that are common in

the outside world to any literate person: writing checks, reading road signs, reading product labels, filling out job applications, and so forth. And the assessment of adult literacy utilizes real world tasks in the tests of literacy.

In the past 10-15 years, critics of adult literacy tests have applauded attempts to assess real world literacy needs but often speak in dismay of identifying tasks that are appropriate for the population as a whole. Just about everyone writing about literacy finds shortcomings in the measurement of literacy. Comprehension of printed material is inextricably mixed with content of the reading material. The success in getting meaning from printed material (i.e., comprehension) is, to a large extent, dependent upon what the reader already knows about the topic and content of the reading material. How often, for example, does the highly literate reader stumble over an ordinary legal document, printed instructions for assembling a Christmas toy, or the jargon and world view of an unfamiliar profession/occupation? There is no content-free way to measure reading skills in a comprehensive, meaningful manner.

Beginning in 1985, the National Assessment of Education Progress (NAEP) extended its study to young adults aged 21 to 25. In the Foreword to the NAEP'S Literacy: Profiles of America's Young Adults, (1987) literacy expert Thomas Sticht comments:

> Conceptually, this study avoids the almost universal tendency to oversimplify the nature of literacy and to divide the population into neat categories of "illiterate," "functionally illiterate," and "literate." Rather, it recognizes that people develop a variety of literacy abilities that reflect the social settings in which they interact with printed materials, whether this be the home, community, school or workplace, (p. v).

Ronald Cervero (1985) argues that while a conceptual definition of adult literacy is possible (i.e., ability to meet literacy demands of society or fulfill personal goals and needs through competence with written materials) an operational one is not. If a common definition existed, then it would be easy to determine the number of illiterates accurately, to design programs, to develop commercial materials, and to make adult literacy programs more accountable. An operational definition is not possible because of the diverse needs, pluralistic system, and the value-laden nature of what is literacy.

Unfortunately for policy makers, the horizontal metaphor--with its diverse settings, contexts, and needs--does accurately reflect a complex situation for adult literacy. Scribner's three metaphors of literacy help us to understand further dimensions of

the personal, economic, political, and cultural implications of literacy in contemporary America. Attempts to measure adult literacy skills have given a great deal of information but no consensus.

Such pessimism about definitions, measurements, and the amorphous nature of adult literacy caused one writer to recommend a moratorium on collecting hard data on illiterate populations and describing existing literacy programs. McGrail (1984) says that we already have enough demographic information about the illiterate population: She argues, instead, that we need to improve recruitment, increase retention time once adults are in programs, and investigate reasons for adults' failure to learn literacy skills. According to McGrail literacy programs cannot now provide meaningful evaluative information because they do not have the resources or the time to gather data.

Statistical Estimates

The many criteria that have been used in attempts to estimate the number of functionally illiterate adults in the United States have resulted in estimates that vary considerably:

1. "...we would estimate that about 21 percent of the population would be functionally illiterate... This is remarkably similar to the 21.7 percent Adult Performance Level (Texas, 1975) rate for functional incompetence in reading," (Stedman & Kaestle, p. 32).

2. "We find it reasonable to estimate that about 20 percent of the adult population, or around 35 million people, have serious difficulties with common reading tasks Another 10 percent or so are probably marginal in their functional literacy skills," (Stedman & Kaestle, p. 34). (Note: Their estimate shifted by nearly two million people in two pages!)

3. "I have proposed the following minimal estimates for 1984: 25 million reading either not at all or at less than fifth grade level; 35 million additional persons reading at less than ninth grade level," (Kozal, p.10).

4. "When we use the criterion of high school completion to help delineate the population that has not achieved functional literacy, we arrive at essentially the same figure as that arrived at by those who used competency levels: somewhere between 54 and 64 million. The total population of the United States in 1978 is estimated to be about 218 million. Of these, about 70 percent, 152.2 million, are (adult); that is, 16 years or older," (Hunter & Harmon, p. 28).

5. "Based on the findings reported here, it can be concluded that over 20 million adults are illiterate," (McGrail, p. 4).

6. A U.S. Department of Education study, Update on Adult Illiteracy 1986, estimates 13% of the adult population as functionally illiterate. This was based on 1980 census numbers and the 13% rate translates into about 20 million functional illiterates in 1980, which, in a rough approximation, comes to nearly 22 million in 1986.

Hunter & Harman (1979) sum up a somewhat confusing situation: "The available statistics--however inaccurate, distorted, culturally biased, and occasionally contradictory they may be--do have a kind of gross truth," (p. 24).

Speaking before a conference of adult literacy educators, Miriam Balmuth concluded, "Thus, the question of the definition of literacy is avoided--as is that of illiteracy. The audience knows what is meant here," (Balmuth, 1986). Undoubtedly, the speaker and the audience knew that the number of illiterates far surpassed the available services.

Yet the most recent NAEP studies are not as pessimistic about the percentages and numbers of functional illiterates, at least among the young adult population--ages 21-25. Kirsch & Jungeblut (1986) report that approximately 97 percent of this age group has reached a "Basic" level of comprehension skill. It is predicted that 80% of this group has the probability of correctly signing a social security card, locating the expiration date on a driver's license, and identifying the correct time of a meeting from a form, entering personal information on a job application form, circling a movie that comes on a particular channel at a specified time, and locating a single piece of information in a newspaper article of moderate length. If successful accomplishment of reading tasks such as the preceding constitute functional literacy in many or most contexts, then the numbers are much smaller than previous estimates. Undoubtedly, there will be much more analysis and interpretation of the NAEP findings.

To what degree adults older than 25 would show similar proficiency is open to some conjecture, as is, of course, the suitability of "Basic" proficiency to adult learner needs. The NAEP studies reiterate that there is no point on any type of reading scale that discriminates literacy and illiteracy. John B. Carroll (1987) doesn't think that the NAEP data provide much help in determining functional levels, though he does think the reports provide a clearer picture to adult educators of the task facing them.

The NAEP studies are as sophisticated as any studies of educational achievement and literacy that we have, remembering, though, that the findings are applicable up to age 25 only. A major theme in the NAEP studies (as well as other studies and commentaries) is that the literacy target keeps changing. It's a Catch-22 dilemma. The NAEP studies call not only for "basic"

reading and computation skills (what Applebee calls "surface level" skills), but also for increased abilities to think and reason about what one reads and writes. A small percentage of the young adults demonstrated thinking skills necessary in a technological society. A major recommendation in NAEP's Learning to be Literate in America highlights what will become a qualitative increase in the nation's literacy demands:

> We must modify our approaches to education so that all children learn to reason more effectively about what they read and write, giving them the thinking skills to analyze, elaborate upon, and extend the ideas with which they are dealing, (Applebee, Langer, & Mullis, p. 6).

An Operational Definition

In this section, a number of definitions and ways of measuring literacy have been discussed. As Hunter and Harman concluded in their study of illiteracy in America, "all definitions of literacy or illiteracy are completely relative," (1979:7). However, for the purpose of this study, functional literacy is defined as the ability to read public notices and applications for public assistance. This operational definition is based on criteria established in the NIE Study used to estimate the number of functionally illiterate adults in Nevada. It follows then, that functional illiteracy is the inability to read and comprehend public notices and applications, and by inference similar documents that are necessary for everyday life at a minimal livel.

II. ILLITERACY ESTIMATES FOR NEVADA COUNTIES

This section summarizes the NIE study (Update on Adult Illiteracy, 1986) which is used to estimate functional illiteracy in each of Nevada's 17 counties. This summary is followed by an explanation of the procedures for estimating the Nevada county illiteracy rate, followed by the results obtained by applying the multiple regression equation to 1980 census data. In order to select the most appropriate procedure for estimating adult illiteracy in Nevada, it has been necessary to determine which of several statistical procedures provides the most valid and reliable estimates. As the review of relevant studies has indicated, there are many shortcomings in the ways in which literacy estimates are calculated. The most promising method to date, however, has been the technique of multiple regression analysis.

Though the demographic data that correlate with illiteracy now dated, there are several important features of the study that make it particulary appropriate for this work.

Summary of NIE Study

In a recent National Institute of Education study using the multiple regression technique, test scores were obtained from a national sample of 3400 adults who had taken the Measure of Adult English Proficiency (MAEP) test in 1982. An analysis of demographic data and scores on the MAEP found strong correlation between the test scores and the following demographic categories: age, nativity, recency of immigration for non-natives, race, poverty status, amount of schooling, and reported English-speaking ability of persons who use a non-English language at home.

In 1982, 3400 adults (ages 20+) were administered the MAEP, which is a measure of adult literacy containing 26 items and designed to assess how well adults can read public notices and applications for public assistance. The NIE researchers chose 20 correct out of the 26 items on the test as the dividing line between functionally literate and functionally illiterate. The researchers justified this particular cut-off by stating that only 1 percent of the test-takers who had some college scored below 20, whereas 50 percent of those with fewer than six years of school scored below 20.

A demographic analysis of those failing the test showed the following parameters (risk groups) correlated with functional illiteracy:

1. Persons age 25+ with 0-4 yrs of school. (.385)
2. Persons age 25+ with 5-8 yrs of school. (.351)
3. Persons age 25+ with 9-11 yrs of school. (.174)
4. Persons age 25+ with 12 yrs of school. (.073)

5. Emigrants age 20+ who came in last ten yrs. (.186)
6. Emigrants age 20+ living here 10+ yrs ago. (.086)
7. Persons age 18+ whose primary language is not English who speak English less than "well." (.521)
8. Persons age 18+ whose primary language is not English who speak English "well." (.203)
9. Persons age 18+ whose primary language is not English who speak English "very well." (.018)
10. Black persons age 20+. (.088)
11. Persons age 60+. (.050)
12. Persons age 22+ living below the poverty level. (.038)

The multiple regression derived from the data contains the coefficients listed in the right column above. The regression equation is:

$$I = .385 \times X1 + .351 \times X2 + .174 \times X3 + .073 \times X4 + .186 \times X5 + .086 \times X6 + .521 \times X7 + .203 \times X8 + .018 \times X9 + .088 \times X10 + .050 \times X11 + .038 \times X12 - 3.4$$

Where, I = illiteracy estimate

X1, X2,...X12 refer to the percentages of each of the 12 risk groups in the adult population in the 1980 Census.

3.4 = intercept of the regression.

Using the procedure outlined above and the 1980 census data, the NIE study reported 13% illiteracy rate for the nation and a 9% rate for Nevada.

When the 12 risk groups identified above are collapsed into 6 factors of immigration status, language (English speaking ability of persons who use a non-English language at home), race (black), years of school, poverty status, and age 60+, each of the factors contributes a percentage of the predicted illiteracy rate. Those percentages for the country as a whole and for Nevada are listed below:

	United States %	Nevada %
Immigration	6	8
Language	11	12
Race-Black	6	3
Years/School	71	71
Poverty/Status	2	2
Age 60+	5	5

By a considerable margin, years of school remains as the best predictor of literacy attainment, followed by immigration status combined with adults who live in homes where non-English languages are spoken. The use of all 6 factors (which, again, are broken down into 12 risk groups) gives higher predictive value, statistically, than using years of school alone.

Although the study was targeted on adults 20 and over, some of the categories used different ages to coincide with the way data was displayed in the census (e.g., years of school for those 25 and older, poverty level of those 22 and older).

Procedures Used for Estimating Nevada Illiteracy Rate by County

The NIE procedure was applied to the 1980 Census data for each Nevada County. The demographic data was taken, primarily, from the Bureau of Census publication, General Social and Economic Characteristics: Nevada.

For example, following the regression equation, the Pershing County census reported 148 adults over 25 who completed 1-4 years of school. This represents 1.8% of the over 25 adults in the county in 1980. This percentage is substituted into the formula as the value for X1 and then multiplied by .385, the coefficient for the first paramenter. Each succeeding parameter (or risk group) was computed in the same manner and the 12 values were summed and the intercept of 3.4 subtracted to give the illiteracy estimate for the county.

The results of these computations are displayed on Tables 1 & 2.

TABLE 1

ILLITERACY ESTIMATES
ALPHABETICAL LISTING OF COUNTIES

COUNTY	ILLITERACY ESTIMATE % OF POPULATION	ESTIMATED ILLITERATE POPULATION
CARSON CITY	7.4%	1,680
CHURCHILL	10.2%	960
CLARK	10.3%	32,800
DOUGLAS	5.5%	760
ELKO	12.5%	1,430
ESMERALDA	11.6%	70
EUREKA	11.7%	90
HUMBOLDT	12.8%	800
LANDER	11.7%	240
LINCOLN	10.2%	230
LYON	10.7%	1,000
MINERAL	13.2%	550
NYE	10.0%	620
PERSHING	15.9%	370
STOREY	6.1%	60
WASHOE	7.8%	10,930
WHITE PINE	9.8%	530

TABLE 2

RANKING OF NEVADA COUNTIES
BY ILLITERACY ESTIMATES

COUNTY	ILLITERACY ESTIMATE % OF POPULATION	ESTIMATED ILLITERATE POPULATION
PERSHING	15.9%	370
MINERAL	13.2%	550
HUMBOLDT	12.8%	800
ELKO	12.5%	1,430
EUREKA	11.7%	90
LANDER	11.7%	240
ESMERALDA	11.6%	70
LYON	10.7%	1,000
CLARK	10.3%	32,800
LINCOLN	10.2%	230
CHURCHILL	10.2%	960
NYE	10.0%	620
WHITE PINE	9.8%	530
WASHOE	7.8%	10,930
CARSON CITY	7.4%	1,680
STOREY	6.1%	60
DOUGLAS	5.5%	760

Limitations of the Studies

The NIE study notes the following limitations of their estimates:

> The cutoff score of 20 could, by some standards, be too low. A higher minimum score would generate larger estimates. These estimates are conservative.
>
> The States' adult population could be more (or less) disadvantaged than the U.S. average in respects that contribute to illiteracy but are not represented by the 12 categories of our equation.
>
> Net migration differentials (in and out of State) may have changed the relative size of high-risk groups since 1980.
>
> Adult education programs may have achieved appreciable increases in literacy among some high-risk groups since 1980.

The authors of the NIE study go on to say that their estimates are based on direct testing of a representative sample of adults with reliance upon more than one variable. The study is broader in scope than others because it contains all segments of U.S. populations--ages, race, etc.

The Nevada study reported here has the same limitations and strengths as the NIE. However, because of time limitations and ease of access, population estimates were made in computing the percentages of some of the parameters. The age breakdown in the following categories were not available in the published census tables, though they are available on census data tapes. These estimates are listed below:

a. Estimated that 70% of the total number of immigrants who came during 1970-1980 were ages 20 and above, (Parameter 5).

b. Estimated that 70% of the immigrants living in the state in 1970 were ages 20 and above, (Parameter 6).

c. Estimated that 70% of the persons whose primary language is not English and who speak English "well" were ages 18 and above, (Parameter 8).

d. Estimated that 70% of the persons whose primary language is not English and who speak English "very well" were ages 18 and above, (Parameter 9).

e. The percentage of persons 22+ living below the poverty level was estimated to be the same as the percentage for the total

population, (Parameter 12).

There would have been some differences in the results if the Census figures for these age categories had been used, but we judge that the differences would not have been significant. The regression coefficients for the parameters are not large and the population percentages for the various risk groups (with the exception of poverty level) do not constitute a very large group within any single county.

III. NATIONAL LITERACY PROGRAMS

The preceding sections dealt with the uncertain numbers of the functionally illiterate in this country and with the confusion and difficulty of defining the meaning of illiteracy. Here we will look a little more closely at the population, at the numbers of adults served, and at the existing adult literacy programs in the nation.

The Illiterate Population and Numbers Served

Hunter and Harman (1979) provide an excellent descriptive classification of adult illiterates which is based, in part, on the work of the Appalachian Adult Education Center. Their classifications of educationally disadvantaged adults are summarized below:

Group 1: Dropouts, academically capable but left school to get married, get a job or simply left because of boredom. They are employed, can read, and are participants in the dominant cultural group. But they lack credentials. They are frequent candidates for GED programs.

Group 2: Dropped out earlier than Group 1 individuals; many cannot read or write. They are usually employed but live in fear they will be found out.

Group 3: Individuals in this group left school because they were failing. They do not do well in a formal education setting and cannot do tasks requiring literacy. This group contains large numbers of non-native and non-standard speakers of English. They try ABE or various job training programs but do not persist.

Group 4: Similar to Group 3 individuals, but these have given up. Little contact with dominant culture, little help from society's institutions. These people are the hard-core poor, the hard-to-reach illiterates in U.S. society.

Hunter and Harman (p. 58) go on to estimate that 2-4 million adults enroll in various types of literacy programs (their numbers are 1978 estimates) out of the 50 million or so in the target group.

Reder & Green cite a study by Jones (1981) that within national ABE programs, only five states had ABE programs that served more than 9% of the target population.

A recent study conducted for the U.S. Department of Education (Center for Statistics, 1986) surveyed a representative sample of the 2900 adult education programs--programs supported by a governmental agency: federal, state, and local school district supported adult education programs--and 1300 local adult literacy

programs (mainly volunteer groups with heavy participation by the two national volunteer groups - Laubach Literacy Action and Literacy Volunteers of America). Based on the results of the sampling, an estimated 729,000 persons received literacy instruction during a one month period in the spring of 1985. An estimated total of 76,000 were on waiting lists for the 4200 national literacy programs.

The largest single adult literacy program is funded by the federal government under the umbrella of the Adult Basic Education Act. The Department of Education disburses ABE funds to each state and six territories to the state education agencies for further grants to a variety of educational organizations, most frequently community colleges and school districts for adult literacy instruction.

Local school districts conduct adult literacy programs and other public funded programs include library literacy programs, prison programs, military training programs, and college remedial programs, including ESL for recent immigrants and foreign students. Unions provide or co-sponsor programs and increasingly businesses conduct literacy programs. In a number of these programs many of the students are not functionally illiterate and many are high school graduates, but they do need increased skills to succeed or advance in a job or for meeting requirements for continued schooling or training.

Literacy Volunteers

Much of the recent national government and media attention regarding the illiteracy problem calls for volunteer solutions for the nation's literacy problems.

Volunteer work is carried on in a variety of formal and informal ways. The two largest national literacy volunteer organizations are Laubach Literacy, an international organization operating in this country as Laubach Literacy Action (LLA) and the Literacy Volunteers of America (LVA). Local affiliates of these two organizations carry on a large share of the volunteer literacy efforts in the country with the support of their national offices. As Hunter & Harman observe (pp. 60-61), their impact goes beyond the numbers of adult illiterates they serve. For example, they have brought attention to the problem of illiteracy. Moreover, materials published by the National Association for Literacy Advance are used in many adult education programs. This attention is significant because volunteers offer the hope of a non-governmental (and, possibly, inexpensive) solution to illiteracy.

In addition to the national volunteer literacy organizations, volunteers are increasingly being used in the various ABE programs as well as in community-based programs, libraries, prisons, and in

church programs such as Lutheran Church Women and the Southern Baptist Convention.

A recent survey of literacy volunteers (Kangisser, 1985) notes increasing professionalism among volunteers and volunteer groups in terms of organizational management, training goals for tutors, staff development activities, and program evaluation efforts. The survey notes that women volunteer at essentially the same rate as in the early 1980's but are devoting fewer hours/week. The volunteer rate for men has increased some during the survey period. Corporations have been emerging as partners with literacy organizations and encouraging employees to be volunteers. Finally, there has been a trend toward greater cooperation among the various literacy providers.

Kangisser goes on to describe two myths of the potential of volunteers in reducing illiteracy substantially: (1.) Volunteers are the panacea for literacy programs. This is refuted by the realization that "even if the number of volunteers were tripled or quadrupled, this larger pool of tutors would not by itself be adequate to reach the millions of adult illiterates in need of help," (29). (2.) Volunteers are "cost-free or low-cost." For effectiveness, volunteers require training, supervision, instructional materials, facilities, etc. These are real costs and while donations of facilities, for example, ease the expenses considerably, there is a limited financial base for volunteer organizations. Volunteer programs are limited in that their instruction is not usually intensive, the recruitment and training of volunteers is resource-consuming, and there is--due to limited funding--little evaluation of the quality of instruction and reading gains:

> Unfortunately, the result of these problems is that most volunteer programs rely largely on anecdotal data from tutors and students to demonstrate success. Verbal and written testimonials from students who have learned to read are powerful and inspirational, but in a field that is increasingly professional and publicly scrutinized more objective analyses are needed. (Kangisser, p. 33)

Another writer asks but does not attempt to answer some hard questions: who can do the best job--LVA, ABE, etc? What are the limits of cooperation among literacy organizations and groups? Should national literacy organizations be well-structured (with the potential loss of grassroots energy and creativity to the efficiency of bureaucratic structures)? (Ilsey, 1985)

While absolute numbers of people served are large and the local literacy programs are characterized by a "common commitment to action, diversity of effort, and creative problem-solving"

(McCune & Alamprese, p. 6), they are very small when contrasted with even the most conservative numbers who are in need.

Why Isn't The Participation Greater?

Literacy programs do not as a rule have large numbers knocking at their doors. The demand appears to be latent. Why isn't the participation greater? Hunter & Harman (p. 58) note:

> Not all adults in the target group will pursue these goals. Many will never enroll in programs of any sort for diverse reasons: cultural or linguistic barriers, fear of failing, distrust of the institutions of the mainstream culture, reliance on electronic media as a substitute for the written word, and the ability of some to find satisfaction despite low levels of academic attainment. Some seek functional skills that promise more immediate payoffs--job training, child-care and health information, citizen and consumer information. Others seek assistance with personal and community concerns from religious and cultural institutions.

Reder & Green (p. 13) attribute the lack of participation by adults to lack of transportation, money, childcare and time. Also, many lack information about literacy programs, and those who do not know about programs "sometimes see a lack of congruence between program goals and their own interests."

The preceding views are, in effect, restatements and elaborations of the earlier discussions of Literacy as Power. People in Harman's Group 4 are not served and probably won't be widely served by dominant culture literacy groups and presently, even ABE programs have not been successful with the hard-core poor. Persons in Group 3 who are not native speakers of English--who do not suffer from the embarrassment of not being able to read English, even though they may be illiterate in their native language-- do enroll in literacy programs.

Moreover, the increases in the number of volunteers that apparently has occurred in the past 3 to 4 years has undoubtedy increased the number served but "this remains a proverbial drop in the bucket, encompassing a small fraction of even the new additions each year to the pool of functionally illiterate adults." (Reder & Green, p. 12)

Numbers of adults served by literacy programs are important indicators, but they do not give us information that is even more important and more difficult to obtain. The amount of training and literacy gains are not consistently and accurately reported.

Students in federally-sponsored literacy programs typically devote an average of 70 hours per year with reading gains averaging 1 year. Hours are difficult to count, they're sometimes inflated by student or program operator, and they do not really accurately depict actual involvement in learning.

Exemplary Practices

In a study by the Far West Education Laboratory published in 1984, David Crandall assesses literacy program operation by focusing on the practices of a national sample of 31 exemplary adult literacy programs. This excellent study recognizes the recruitment/retention problems that have been alluded to and covers the range of literacy program activities.

It is worthwhile at this point to cite a few of the exemplary practices that were identified in the Far West study. While most of the recommendations are known to experienced literacy workers, the published study can provide a useful checklist for any organization. Here are a few examples of effective practices:

Recruitment: "Once established, remember that personalizing your message is one of the most effective strategies for attracting new students. Using 'known' and trusted individuals is the best way to inspire confidence in new learners," (p. 3-16).

Orientation: Exhibit sensitivity to learner's concerns, good listening skills, and an awareness and respect for the community values and cultural mores of the new student.

Counseling: "Teachers, tutors, and support staff need to be trained in effective strategies in how to help adult learners," (p. 3-46).

Testing: Make testing non-threatening and explain why the tests are important and useful.

Instruction: "Rather than subsequential skills approach to reading instruction, we noted a trend to language-based reading methods," (p. 3-115).

Crandall's Guidebook for Effective Literacy Practice is comprehensive and objective, and is highly recommended to literacy program operators. The study also exists in shorter form as a B.F. Dalton Company project (Mayer, 1984).

IV. SURVEY OF LITERACY PROGRAMS (NEVADA)

1. Literacy Organizations:

Surveys were mailed to 20 literacy organizations in the state. Fourteen groups responded in writing. Several organizations not responding were telephoned; this information is included in the survey summaries that follow. The survey instrument is reproduced in the Appendix, and the survey question responses are summarized below.

1. Programs offered: All programs offer basic reading and most offer English as a Second Language (ESL) as well. In varying degrees, writing instruction is included as part of the reading program.

2. Type of instruction: All programs use individual tutoring as the primary instructional approach. Community college ABE programs use small group tutoring as well; this is a procedure in which a tutor circulates among small groups of students helping individuals. ESL instruction is frequently in a class setting.

3. Methodology: "Eclectic" was the most frequent resonse to the question of instructional methodology. Many programs use several different approaches. Structured phonics is emphasized in a number of programs, particularly the volunteer organizations that use Laubach materials. In a competency approach, reading materials that have particular relevance for the student, such as reading material from the student's job, are used for instruction. A language experience approach--which draws upon the student's own language transcribed into writing by the teacher--is used in a few programs.

4. Students currently enrolled in the program:

	ABE	ESL	Other
CALL Computer Assisted Literacy in Libraries, Las Vegas	47	-	-
Literary Council of Las Vegas	118	23	-
Lahotan Valley Literacy Coun.	5	6	-
Truckee Meadows CC (includes Washoe High)	35	390	-
UNLV/ESL	-	190	-
UNLV/Reading Center	-	-	7
UNR/Reading Center	3	1	4
Western Nevada CC	100	182	30
Northern Nevada CC	35	150	-
Assault on Literacy, Las Vegas	10	-	-
READ: Volunteer Literacy Services of Southern Nevada	38	34	-
Clark CC (1985/86)	200	800	-
TOTAL	591	1776	41

5. Students hours per week: For ABE programs, the hours per week ranged from two to six hours, and the ESL range was four to sixteen hours.

6. Average total hours of enrollment per student: Many programs do not have this information. Programs at community colleges report a range of 30 to 80 hours as the average length of time. It is difficult to track hours in programs that are essentially open entry and exit.

7. Students served in 1986: Literacy Council of Las Vegas - 141; Lahontan Valley - 25; TMCC - 465; UNLV/ESL - 450; UNLV/Rdg Cen - 26; UNR - 13; Western Nevada CC - 280; Northern Nevada CC - 241; Clark CC - 1081.

8-9. Adults currently on waiting lists: Except for ESL at some sites, relatively few adults were on the waiting lists for organizations providing literacy training.

10. Program personnel:

	Supervisor	Part-time Tch	Volunteers
CALL	3	-	47
Literacy Council/Las Vegas	1	-	78
North. NV/Lit Coun	-	-	150
Lahotan Valley	-	-	30
Truckee Meadows (CC)	1	23	30
UNLV/ESL	1	5	1
UNLV/RC	1	1	1
UNR/Reading Center	1	9	-
WNCC	1	9	8
Northern NV CC	1	9	3
Assault on Illiteracy	-	-	18
Diane Aguila (Las Vegas)	-	-	12
REAS	-	-	41
TOTALS	10	56	419

In addition, TMCC and WNCC each have one full-time teacher.

11. Training for volunteer tutors: All programs provide training for tutors, averaging about 12 hours and frequently followed by informal training by program supervisors. The Laubach training program is most frequently used, though some programs supplement it with other approaches. Volunteer organizations have greatly stepped up the training of volunteers in the past year or so, and ABE programs are increasingly using volunteers to assist the part-time paid instructors. In the needs assessment section of this survey, volunteer organizations expressed a "strong need" for additional training for volunteers.

12. Student demographics: Of the organizations reporting data on student demongraphics, the following breakdown was given:

Employed 59%, Unemployed 41%
Male 50%, Female 50%
Hispanic 55%, Asian 28%, White 16%, Black 11%, American Indian 1%

13. Recruiting of students: Students came to literacy organizations as a result of referrals from social service agencies (Vocational Rehabilitation, Veterans Administration, Salvation Army, etc.), public schools, and the Reading Center of Northern Nevada. Mentioned as frequently as agency referrals were "word-of-mouth" and radio, television, and newpapers.

14. Testing program: Many different testing programs (diagnostic and assessment of reading progress) are used by literacy organizations. Tests built into the Laubach program were most frequently mentioned, and many sponsored programs also use informal testing procedures.

15. How do you establish long and short-range goals for your students? The setting of student goals is generally a joint effort between the student and program personnel, usually the director of the organization. Students came to programs with varied needs, ranging from a request for assistance in completing a job application to beginning the process of learning how to read. There is understandably more variation in student goals in ABE programs than in ESL.

16. Instructional Materials Used: Like the testing programs, a wide variety of instructional materials are used. The most common are the Laubach published materials. Steck-Vaughn and Cambridge publishers were also mentioned. Programs also use student-generated materials--their own writing as well as reading materials they bring to class.

17. Counseling Program: Informal counseling is frequently provided by tutors as part of the teaching/learning process. Often, a close relationship develops between tutor and students, which is focused on developing the self-concept and confidence of the learner. Professional counseling is available for adults in the college ABE programs.

18. What information do you have of the success of your program? Very little hard data are available. One of the programs (TMCC) reports an average reading gaining of 1.1 years based on pre-and posts-tests. Job Corps reports a similar gain. Increased self-esteem is mentioned most frequently as a major outcome and indication of program success.

Other indicators of program success include:

1. Students expressed greater confidence in their job performance;

2. They progressed through the steps of the structured reading programs;

3. They enrolled in GED programs or other more advanced types of education or training;

4. They continued to participate in program.

19. Screening of volunteers: Persons interested in voluntary literacy works are generally interviewed by the program director to determine the person's suitability for training and tutoring. A certain amount of self-selection "out of participation" occurs during the literacy training period. One program requires a reference check, and another requires the volunteer to complete several written assignments.

20. Financial support: Federal ABE funds, institutional support (community colleges, universities, libraries), volunteer membership dues, and private donations provide financial support for the literacy programs.

21. What facilities do you use for your program? Literacy training is provided at institutions (colleges, universities, public schools, libraries), churches , and homes. One program uses space provided by a government agency, and another mentioned a business place as the site of tutoring.

22. At what times is your literacy instruction offered? At institutions, times vary for class and individual instruction. Typically, morning and early evening times are available two to four days a week. Some afternoon instruction is available. The ABE classes in sites away from the college campus (e.g., Yerington, Ely) have much more restricted instructional hours,

typically twice a week in the evening for three hour sessions. Volunteer organizations set times that are convenient for the tutor and the student.

23. What first-hand knowledge do you have that employers want job applicants who have better reading and/or math skills? Responses include students who come to programs saying they need better skills to get a job, employers who say that applicants cannot complete an employment application, and employers offering a facility for literacy training.

24. What first-hand knowledge do you have that employers want current employees to have better reading and/or math skills? Responses include comments about students who:

1. say their jobs are in jeopardy unless they improve their literacy skills;

2. want a promotion;

3. are referred by their employers.

In addition, employers have discussed on-site training for non-native speakers of English with several organizations.

25. What non-instructional services do you provide for your students? (Childcare, transportation, etc.) One program provides transportation. Otherwise, no other non-instructional services are provided by the literacy organizations, other than the counseling previously mentioned.

26-37 Needs: Recruitment-- "more effective ways to reach adult illiterates" --was easily the strongest need identified by literacy groups in the survey, both by public-supported programs and the volunteer organizations. Additional training for volunteers was the second greatest need identified by volunteer groups, and additional professional teachers was ranked second by public-supported programs. Additional volunteers was ranked third as a "strong need" by all organizations.

In an open response format, the programs identified improved administrative procedures a a major need (e.g., coordination of students/tutors and recordkeeping). Retention of students, stable funding, and computer-assisted instruction were also mentioned as needs in program improvement.

Ranking of Needs

Recruitment of students	Very strong need
More volunteers	Strong
Professional teachers	Strong - moderate
Money	" "
Training (volunteers)	" "
Retention of students	Moderate
Coordination w/other organizations	"
Better tests of literacy	"
Facilities	"
Tutor match with students/ age, sex, ethnic	"
Better materials	Moderate to some
More materials	" " "

38. Which part(s) of your program are you most pleased with? The most frequently mentioned facet of the program was the tutors--their commitment, their enthusiasm, and the relationship that develops between tutor and student. Other comments include the tutor training program, flexibility of services, computer segment, student progress, self-paced features of program, and significant program expansion.

39. Which part(s) of the program are most in need of improvement? Administrative matters predominated here, particularly the matching and coordination of students and tutors, and recordkeeping. Typically, volunteers want to do literacy training, not assist with clerical tasks, where the need is often greater. Other items mentioned by at least one literacy provider include better retention of students, more stable funding, better materials, improved testing, and developing computer reinforcement materials.

40. What are your short and long-range organizational goals? Overwhelmingly the responses here were to expand the programs via: increasing number of students served, number of volunteers, number of sites offering instruction, and number of hours available for literacy service. The long-range goal frequently mentioned was to reduce illiteracy in Nevada.

41. Attendance at Coalition literacy conference and pre-conference training workshop: All but one organization plan to send at least two people to both the literacy conference and pre-conference training workshop.

2 County School District Survey

Survey results from the following county school districts are summarized in this section: Churchill, Douglas, Elko, Eureka, Humboldt, Lincoln, Lyon, Mineral, Nye, Pershing, Washoe's ABLE Program and White Pine. The survey is reproduced in the Appendix.

1.-4. Programs: Current enrollment 1985/86 enrollment and average length of enrollment

Program	Current Enrollment	1985/86	Length of Enrollment
Adult High School	229	94	120 hrs
GED	190	159	10 - 180 hrs
ESL	39	27	50 - 200 hrs
ABE	89	20	25 - 56 hrs

5. Recruiting, testing, and criteria for completion: Recruiting is primarily done through newspapers and word-of-mouth. Radio, television, posters, school bulletins, and agencies were also mentioned.

Testing procedures include standard GED preparation tests, SAT, unnamed diagnostic tests, teacher-made tests, and the Test of Adult Basic Education (TABE).

Criteria for completion was passing the GED tests and completion of the mandated 120 hours for the adult high school program.

6. Reading levels of incoming students and reading gains: There is a wide variation in reading levels of incoming students grade 3 to grade 10. The following reading gain scores were reported: 4 years, 2-3 years (2 districts), 1-2 years, and slight gains.

7. Reading programs in school districts, middle and high schools:

Chapter 1 (5 districts)
Migrant Education
Remedial reading being piloted in one high school
Middle school developmental reading.
All three programs in middle and high school (2 districts)
High school developmental reading
High school remedial reading.
ABE classes in coordination with an alternative high school.

8. Description of middle and high school reading programs: Programs tend to be individualized supplemented by small group approaches. A variety of reading materials are used. One district mentioned computer reinforcement, and another district said that Chapter 1 programs are the most successful ones.

9-10. Attendance at Coalition conference and pre-conference training workshop: All but one district plan to send persons to the conferences.

11. What are the greatest needs in adult literacy in your county? Expansion of ESL programs was most frequently mentioned. Also, improved literacy for job requirements, identification of adult reading materials, and funds.

12. What are the best ways to meet adult literacy needs? Funding was mentioned most frequently. The small population in these counties makes per pupil costs high. Other responses include: expanded vocational programs, providing caring and non-threatening instruction for adults, tutorial programs, and expanded ESL programs.

13. Ways to improve school reading programs:
Smaller class size (4 districts)
Alternative programs (2 districts)
Individualized approaches
Remedial classes
More teacher training (4 districts)
Additional programs
More emphasis on reading in content areas (2 districts)
Mandate reading as a required high school course
Provide reading materials for homes.
Motivational techniques

V. ECONOMIC & EMPLOYER NEEDS FOR A LITERATE WORKFORCE

Employer Demands

For a long time, employers have said, "Give us entry level workers who can read, write, and do math and who have a good work ethic, and we'll train them." They rightfully complain about applicants who cannot complete a decent employment application and who do not have a good sense of what work is. But now employers are more insistent, a little more specific, and more willing to cooperate with educational agencies in dealing with the illiteracy problem, not only for those entering the workforce but for older adults as well.

This spring the Kansas legislature considered a bill, the Kansas High School Graduate Warranty Act, which was meant to provide assurance that Kansas graduates demonstrated basic skills required for successful entry-job-level performance. If the skills weren't up to par, the state Board of Education would enroll the graduate in a state-operated remedial program with the costs borne by the home school district. Chris Pipho of Phi Delta Kappa reports that the bill was not expected to pass. Nevertheless, it represents a significant employer/legislator perspective toward basic skills and school district accountability.

Education Week quoted Sol Hurwitz, senior vice president of the Committee for Economic Development:

> "It (literacy deficit) is an educational problem, situated in schools, and the education community bears the heaviest burden. But it goes beyond the conventional limits of what we consider education." He went on to say that business would support literacy efforts which could remove the burden of spending billions of dollars annually to teach entry-level workers in the literacy skills they did not learn in school. (Education Week, March 18, 1987, pp. 1 & 16).

Greater concern about the relationship between education (with an important focus on basic skills development) has arisen because of (1) fears that the country cannot compete in a global market without the best educational system, (2) fears that our workforce cannot adapt quickly enough to technological change, and (3) fears that we are creating a "large, under-educated, unemployed, and possibly unemployable underclass.... A strong employer consensus asserts that all workers will have to learn new skills and will have to know how to learn still more skills as time goes on," (Butler & Hahn, pp. 1,12).

Despite the consensus, there is little understanding of the direct relationship between skills and knowledge learned in school and how these competencies translate into successful job performance. There is a tremendous variety of actual basic skills demanded in jobs. In a review of the research on the "job literacy gap" (Stedman & Kaestle, 1987), the authors conclude: "Obviously, severe reading deficiencies would interfere with the ability to acquire and hold many jobs, but above a certain threshold, reading level as measured by standardized tests has little to do with job performance." (39). There are those who say (O'Toole, 1973) that much of the workforce is <u>overeducated.</u>

It is suggested (Butler & Hahn) that the high school diploma may serve a gatekeeping function. That is, it may represent not so much the graduates' command of basic skills but their overall employability, with the credential signifying a person who possesses good habits and attitudes, and is, therefore, a better employment risk than someone who doesn't have the credential.

In brief, the same difficulties found in measuring functional literacy are found in measuring basis skills and job demands. The dilemma is related to the old question in employment assessment of the square peg and the round hole. Many jobs have minimal literacy requirements, and there are employees who are functionally illiterate but are the "best workers" on the crew. (They are probably less rare than the high shool dropout who becomes a multi-millionaire.) Twenty-five percent of recent college graduates are employed in jobs that do not require a college degree (Hodgkinson, 1987) Companies with low-wage strategies (e.g., hotels, casinos) may not be interested in employees whose employment goals would be higher if they had increased literacy. In a survey of Chicago area employers of non-native speakers of English, the major concern was failure to "follow directions" and ask questions when they didn't understand something--matters of oral English, rather than print literacy (Becker, et al, 1986). There are illiterates "hidden" in the workforce (Goldberg, 1985), and employers do not know who they are, and employees do not, obviously, want to be found out.

Nevada Employers, UNR Study

Funded by a Carl Perkins Vocational Education grant from the Nevada Department of Education, the Research and Education Planning Center of the UNR College of Education conducted a 1986 survey of 112 Nevada employers. In the survey report--Nevada Employers and Vocational Education--nearly half of the employers (46%) cited "lack of reading and/or math skills" as a "significant barrier" for job applicants. Twenty percent of the employers listed the lack of reading/math skills as a "significant problem" for current employees.

The researchers did not gather further information, for example, on how many applicants fail to be hired because of limited basic skills or probe into the types of literacy tasks and the numbers of affected employees that represent significant problems for existing employers. Some of this information is unattainable and some would require extensive research. But there is a serious problem in Nevada when almost half of the employers say that reading and math skills are barriers for applicants (another 30% of the employers reported that the skills are "somewhat a barrier").

Fewer than 20% of the employers saw literacy skills as a significant problem for current employees. This represents a significant number of employers who recognize and perceive literacy deficiencies. Broader aspects of literacy were also cited by employers as significant barriers or problems. These include communication skills, interpersonal skills, and poor command of the English language (oral language skills). The only barrier/problem that drew a higher percentage of employer responses than literacy skills was "poor work record" for job applicants.

Projected changes in the types and nature of jobs in Nevada was also surveyed by the UNR researchers, who summarized:

> Over half of the surveyed employers foresaw changes in the nature of current jobs (52.6%) and the creation of new jobs (54.4%) in their firms in the near future.
>
> Predicted changes in existing jobs and new jobs to be created focused on increased automation/mechanization, the need for specialized training, and the strong need for computer skills found in a wide variety of occupational areas.

It is quite likely that retraining will pose the most significant employee literacy problems. Workers who have performed well for a number of years in jobs that require minimal literacy may not be able to meet literacy demands for the training, even if they do for the new job itself. The "hidden" illiterate workers could be "found out" when their jobs are eliminated and a company offers retraining. Training on computers requires literacy--language, thinking, and number skills--that the functionally illiterate will have trouble learning. A local warehousing firm, for example, is using computer-equipped forklifts.

The concern in Nevada for workers' basic skills and productivity is also a national and international concern. In the Foreward to one of the recent NAEP publications (Applebee, Langer, & Mullis, 1987), David T. Kearns, Xerox Corporation head, wrote:

> The office, not the factory, is the center of our working lives. The backbone of the new American work force will be people who deal mainly with the formation and refinement of ideas.... American business needs workers who not only are proficient in the basic skills, but who know how to think and can communicate what they're thinking. We need workers who can adjust to change, who can absorb new ideas and share them easily with others. In short, we need people who have learned how to learn. (p.3)

Two Caveats

1. Notwithstanding the predicted literacy demands of a post-industrial society, economic health and worker productivity depends upon a large number of factors beyond basic literacy or even the expanded notions of literacy called for by the NAEP. Wynn DeBevoise discusses the factors which contribute to worker productivity and the use of knowledge in work. He finds it important to consider "not only educational attainment but also affective traits, cognitive skills, family background, reqard and punishment systems in schools and bureaucracies, management techniques, and economic and environmental conditions." (DeBevoise, 1983:9)

One could argue, then, that The Nation at Risk report has over-stressed the role of education in this country's competitive position internationally. This is a dilemma for educators in a public school system that has historically taken on most of society's problems, has not solved all of them, and perhaps received unearned credit and undeserved blame from time to time. But it is difficult to say no to increased responsibilities, especially when money, status, and professional challenges are

involved. And the business sector that has supported schools in recent years can be fickle: "The business community cannot provide effective leadership for educational reform because of the heterogeneity of its make-up and the capriciousness of its support." (Alexander, 1986:166).

2. It is clear that literacy deficits prevent many individuals from getting and keeping jobs and from being promoted. These are personal tragedies with personal and societal costs. The personal costs are plain enough; the societal costs are not. The implication in much of what is written about the economic and social costs of illiteracy (e.g., welfare, crime, unemployment) is that a dramatic increase in literacy rate would significantly decrease unemployment (and with it welfare, crime, unemployment compensation, etc.). But jobs are not going to suddenly appear for a newly literate force of the unemployed. The creation of jobs is a function of the economy as a whole and much more influenced by entrepreneurship, management effectiveness and creativity, and an industrious engaged workforce than by increases in the level of literacy of the adult population. The relationship between literacy and economic and social development may in fact be unidirectional. That is, historically both for societies and individuals, social and economic development may precede and even cause an increased interest in activities which improve literacy, and an increase in literacy proficiency generally (cf. Hunter & Harman, 1979).

National and State Demographic Trends

Earlier, reference was made to the growing size of the underclass--a group of people largely unemployed and maybe unemployable with a high percentage of illiteracy. This group is not, by definition, economically productive. It includes children whose parents cannot read and who, for that reason, are not likely to learn to read themselves.

Minorities are disproportionately represented. By the fourth grade, blacks and Hispanics are well behind white students, and this trend continues throughout college. The economic and social costs (class differences that take on racial overtones) of the underclass are likely to be greater in the near future because of population trends. In a recent presentation before an adult education group in Reno, demographic expert Harold Hodgkinson reported that related to the reduction in birthrate of white females, 40 percent of the baby "boomlet" now entering school is racial minorities. In addition, more children will be coming from poverty homes and more with mental and physical handicaps. Hodgkinson went on to say that education for these "at risk" children is more important than ever, if only because they will comprise a significant portion of the workers who will be supporting us in our retirement, and there is, therefore, a need for them to be productive.

VI. RECOMMENDATIONS

Introduction. If we are to be more successful in our efforts to teach adult nonliterates than we have been in the past, then it is necessary to be aware of two (documented) facts: the processes of reading and of writing are complex, and the process of learning to read and to write is complex. Awareness of this complexity should help literacy programs and those they serve approach the tutorial task more realistically.

As the research has demonstrated, becoming literate in American society requires more than simple mastery of letter-sound correspondences--the "decoding" aspect so often referred to. Becoming literate involves understanding the uses to which literacy can be put and using the skills accordingly; becoming literate involves understanding that there are many different types of printed material and these require different reading strategies; becoming literate involves acquiring a basic understanding of a host of societal conventions and their use. In order to increase the effectiveness of adult literacy programs, in the context of any tutorial session, a delicate balance must be struck between characterizing the task ahead as an almost insurmountable obstacle on the one hand and a six-month or a year quick fix on the other.

Because of the complexity of the phenomena with which we are dealing, some of the following recommendations for adult literacy efforts in Nevada are conceptual and others are more action-oriented. The conceptual recommendations address the attitudes and commitments that are truly effective for large numbers of individuals. Action recommendations derive from conceptual recommendations.

No "quick fix". At this time, the field of adult education is unprepared to make the long-term commitment and investment necessary to help students make substantial improvement. The research into effective programs is incomplete. The resources currently allocated by government and volunteer agencies, educational institutions, and businesses are inadequate to meet the challenge of educating adults.

Two interrelated factors account for the problems facing adult literacy programs: programs have not been designed to attract students over a long period of time, and literacy development is not properly understood as a slow, gradual process. Generally, educators expect school-age students to make a year of progress for each year of instruction. A similar time scale should be expected for adults.

Underlying this argument is the assumption that if we knew the extent of the problem and how to solve it, resources would be available. As has been discussed in the body of this report, we

know that there are at least 67,000 adults in Nevada who are illiterate or functionally literate. All but 3% of these adults can benefit from instruction. And for those students who can benefit from instruction, it will take at least three years of steady instruction (at least two one-hour sessions per week) before they will be able to readily find materials which they can read with ease and good comprehension. Presently, approximately 2800 adults are involved in literacy instruction.

Given the present structure of most adult literacy programs, students reading between a 4th and 8th grade level make the most progress. Students reading below a 4th grade level, and above an 8th grade level do not make substantial gains in conventional programs and as would be expected, the drop-out rate is extremely high. Adult literacy programs must be designed to provide long-term instruction to students reading at a variety of reading levels.

Workfare programs are presently under consideration, and should include literacy instruction. However, benefits should not be tied to simple measures of achievement. And as in all literacy initiatives, a realistic proposal must include a long-term investment and commitment. An analysis of a similar program is useful to understand the need for a long term commitment. In a study of the STEP program for disadvantaged 14 and 15 year-olds it was found that students who received part-time literacy instruction did better on achievement tests than did a control group where students were enrolled in a similar summer work program where there was no remedial instruction. At the beginning of the program students scored at a 6th grade reading level, at least two years below grade level. The important point here is that at the end of the summer in the STEP program student achievement backslid to only a 5.6 level whereas students in the control group were reading close to a 5th grade level. (Public/Private Ventures, Communications Department, 399 Market St., Philadelphia, PA 19106, 1987). Progress in literacy achievement is a slow and long-term proposition.

Limitations of literacy instruction. There has been very little progress made in reaching older adults. The vast majority of adults enrolled in literacy programs are below age 34. Surveys of businesses indicate that businesses want employees and prospective employees to be more proficient in reading and writing. While a 12th grade reading level is required in high tech-type jobs, there does not seem to be an optimal level of literacy proficiency specified for most entry level employment. It is doubtful that there would be jobs for the newly literate. Literacy instruction, by itself, is not the key to employment. There are a variety of needs among individuals in our society, and it is mistake to think that literacy will solve other social problems (pregnancy, drug abuse, and even unemployment). A cost-benefit analysis of literacy instruction with particular age

groups has not been completed, and if the affective benefits of literacy are considered it is doubtful that any such analysis would be possible.

Adults who stay in literacy programs for more than a year do indicate personal satisfaction from their attainments.

Thinking and reading. To be a good reader one must be able to read fluently with good understanding. All literacy programs have strands which teach letter sound correspondences and word attack strategies at the primary levels. Often, phonics instruction occupies too central a focus in remedial programs. Extended reading exercises in meaningful and interesting materials needs to be available from the very beginning of literacy instruction. One of the major reasons students drop out has to do with their conceptions of their own progress. When students are given the proper support to read meaningful material they have the opportunity to experience fluency, and begin to see a purpose for reading. We also know that students must exercise what they have learned in phonics instruction by using this newly acquired knowledge tacitly with the full support of other language systems. Readers do not learn their reading vocabulary by memorizing isolated words, but, rather, by continuous plenty of experience or exercise reading. Clearly, we learn to read by reading, not by practicing a series of isolated skills.

One approach to literacy instruction especially evident in vocational programs focuses on word attack strategies, and teaching the key vocabulary in isolation. What this approach ignores is the richness of language. Consider the literacy proficiency required of a cook. At one point it was determined that an Army cook needed to read at a 7th grade level. Learning to read the key vocabulary in a cook book is insufficient for comprehension and is much like reading road signs, where the driver has to supply the verb. The reader must learn to move about a text at a variety of levels: from word-to-word, sentence to sentence, paragraph to paragraph, and in this case from recipe to recipe.

Cultural literacy is a term which highlights the differences in reading and thinking. Students must not only be trained to read words, they must be trained to think while they read and this often involves thinking in new ways about new subjects. For example, the cook needs to have something like a visual picture of folding in an egg white before the directions to do so will make much sense. Readers must be thoughtful in their search for sense; they must read with great integrity, stopping at points where they do not understand, and then searching among a variety of sources for clarification. Tutors and classmates are important in such cases, and therefore, greater emphasis in literacy instruction should be given to encouraging discussions.

Three levels of reading have been described: Independent, Instructional, and Frustration. The Independent level is the level at which the student can read with ease and good comprehension. In Instructional level materials, the student needs the moderate support of a teacher or peer tutor. At the Frustration level, the vocabulary and/or the conceptual loads are too great. Too many adult learners are instructed at their Frustration level or at the low end of the Instructional level where they are unable to read with fluency and understanding. Only by addressing reading and thinking skills will the needs of the adult learner be properly addressed.

Literacy instruction should not focus solely on vocational reading. Narratives make it easier to think while one reads, and Because the conceptual load is reduced the actual reading becomes easier, and, thereby, reading fluency is promoted. There's greater redundancy in narrative text both in terms of information and syntactic structures.

Research. The research on effective programs is sadly deficient. There is no real body of cummulative knowledge or theory building (Plecas and Sork 1986). In the field of literacy in particular there needs to be basic research in a variety of areas ranging from reading proficiency to program development. Examples of some straightforward questions include: How is adult literacy development different from younger students' development? What is the rate of vocabulary acquisition of adults? What are the characterisics of an effective program? How much of an investment is necessary to effect change?

The special demographics of Nevada makes it a unique setting for testing a number of program and instructional models. The mix of urban and rural/remote areas and the state's diverse populations challenge organizers to develop programs which can attract and keep students over long periods of time. Volunteer organizations and educational institutions should keep careful records of their students' progress. Progress should be examined in terms of achievement, but when looking at achievement relative levels should be examined to make it possible to see what types of students (i.e. grade level, and social background) benefit from particular types of instruction. Informal measures, including self-assessments and goal setting, should be included in the measures of achievement.

Programs in a variety of locations should be studied carefully. The Literacy Coalition may want to concentrate on three or four exemplary programs around the state. There are a variety of interesting programs in the initial stages of implementation or development (CAI in Clark, ABLE in Washoe, and oral history in Hawthorne). These programs should be studied to see who they attract, how long the participants stay in the program, and what sorts of gains are realized.

The concept of literacy proficiency should be studied. Techniques for measuring proficiency need to be developed, and the levels of proficiency necessary for employment need to be determined. Proficiency measures are important to both tutors and program developers. The federal government has recently funded three small projects which explore this issue, but a great deal more research is necessary to delineate the relationship between student needs and the full range of literacy activities.

Volunteer programs should be examined to see who is attracted to particular types of programs both in terms of students and tutors. Such studies should be longitudinal in scope. Clearly, tutors feel a need for maximum support, but their progress should be tracked in terms of specific needs over time. The qualities of effective volunteers need to be studied. What are the levels of proficiency necessary for successful tutoring?

To a large extent the figures on the number of functional literates is based on the census figures on the number of years of schooling. Harman (1984) has shown that there are three groups of students enrolled in literacy programs: one-third of the students had 7-9 years of schooling, one-third had 10-12 years of schooling, and another third were ESL. Obviously, the figures of the number of illiterate adults do not account adequately for students who have had substantial experience in school but who still do not read at a functional level. The number of adult illiterates and functionally literate will continue to grow. People are living longer, the birth rate has climbed, and there will be more ESL residents.

Adults as role models. One of the best predictors of reading success at the end of first grade is whether or not the child was read to at home. The children of nonreaders suffer accordingly. Parents of pre-schoolers and school-aged children need to become aware of literacy activities for the home. A number of cooperative initiatives between adult and primary programs should be undertaken. For example, as part of literacy instruction adults can practice reading children's books to read to their children. Similarly, adults can write letters to their nieces, nephews, and grandchildren. Working from the other direction, school-aged children can be trained to read to their parents and primary teachers can develop activities which will benefit both parents and their children.

Instructional models and teacher training. Professionals are not attracted to adult education. This is due in part to the undependable funding and temporary nature of programs. Nationally, three-quarters of the teachers are not certified and 83% are hired on a part-time basis. Educational institutions need to be more active in their support of adult literacy programs. The Nevada Department of Education has outlined the needs of the state, and their planning relects these concerns, (see NV Department of Education Status Report, 3/3/87, Appendix D).

No one program will be effective for all adults who want to improve their reading or writing. The disputes over the best methods of instruction are of little importance compared to other needs. Professionals and paraprofessionals need to be better trained to handle the demands of teaching adults to read, particularly at the lower levels. They need to understand the developmental needs of their students and they need to see the connections between reading, writing, and spelling development and instruction. Tutors need ongoing support and guidance and they need to be familiar with teaching models which work with adults in order to plan instruction over long periods of time. Teachers lack the materials and techniques for providing instruction at the Independent and Instructional levels of their students. Programs which rely solely on volunteers and temporary funding need to be examined. A number of researchers have questioned the vitality of such programs in light of limited savings of volunteer programs, training needs, and their ability to make long-term commitments to training and instruction.

The Literacy Coalition aims to serve and train tutors throughout the state. The Director of the Coalition should continue to organize instructional sessions for tutors and trainers. "Centralized" conferences co-sponsored by local tutoring programs and the Coalition will be an important feature in ongoing training. In these conferences equal time should be allowed for specific training by professionals and communication and sharing among tutors.

Ongoing teacher training programs will be most successful if they help tutors with specific cases. Contextualized teaching using a case study approach is important, and gradually tutors will be able to make generalizations about teaching and learning which will serve them when they work with other students (and assist fellow tutors.) Audiovisual materials on effective teaching behaviors should be available for tutors. These materials should include lessons on diagnostic teaching techniques, organizing instruction, and activities which make the link between reading and writing development. Video training programs have not been effective when they have been considered as self-contained; training tapes should be used as support materials in the centralized conferences and training programs sponsored by the Coalition.

There are a variety of training programs already in existence in the state which should be consulted. The Colleges of Education have developed clinical experiences for teachers who want to learn how to teach remedial and corrective readers. In addition, the Colleges of Education offer a variety of useful courses on literacy proficiency at all academic and age levels. Most of the

techniques which are used with children are readily adaptable to instruction with adults. However, adults do have some special needs, and the Colleges of Education need to develop appropriate programs which address the special needs of older learners.

The National Writing Project has established an excellent model for teacher training and over two thousand teachers have been trained through the Nevada Writing Project and its affiliates. In these programs, teachers are trained to teach writing, and in their Invitational programs, teachers are trained to teach other teachers. The strengths of this model should be examined by the Coalition, and surely tutors should be encouraged to participate in the Open sessions sponsored by the Nevada writing projects.

The Coalition might consider sponsoring a statewide newsletter. The University of Pennsylvania has an excellent newsletter, and while it has a national audience and has a research component, it has regular features on effective programs and materials.

At least one third of adult students had consistent feelings of failure in their previous school experience (Chall, 1984). Tutors need to be trained to deal with these negative feelings. They need to be trained to help students set realistic short and long-term goals, and to help students gauge their progress. Since small group interaction is often useful in easing anxieties, tutors need to be trained in techniques for facilitating peer group discussions and tutoring sessions.

Resources. A variety of sources need to be more actively involved in providing literacy instruction.

Employers need to see that literacy instruction can improve productivity and morale. It is likely that high-tech, light industries would be interested in supporting vocational training programs where there is a major focus on literacy. Employers should consider providing lunch-break literacy instruction or offer stipends (for transportaion, materials and fees) to employees who are studying in established literacy programs. The teachers involved in business-based programs could be hired privately or could be a part of a public school program.

Community-based literacy programs are effective because they are close to students' and tutors' homes or business. Community groups need to be more involved in literacy initiatives. They can provide tutors and housing. The focus should not only be in outreach, but should also focus on adults within their immediate sphere. Church groups in particular may be effective in locating and then serving individuals in their congregations. High school, college and university students could become involved in literacy instruction. Peer tutoring models which have been used in the

public schools should be explored. Students who have made significant progress can serve as effective tutors. In this case, both parties benefit. The tutor spends time reviewing and reading easy material for fluency. The student has the opportunity to learn from someone who can relate easily to his situation and learning needs. Collaborative learning projects should be pursued both at the program level among businesses, school and community groups, and on an instructional level among teachers for training, and students for support.

On the average, students in literacy programs funded by the state receive 70 hours of instruction a year. The drop-out rate in such programs is typically high, and, thus, it is likely that the range is considerable. Compared to primary school children who receive at least an hour of language arts instruction a day, and given that one year of growth should be expected for each full year of instruction, the state is not funding adult literacy at an adequate level. If each illiterate or functionally literate adult in Nevada received two hours of instruction each week, an estimated 6 million instructional hours would have to be provided.

Presently, the state of Nevada is funding a variety of programs including a number of special demonstration projects. But the state should take a more active role in developing a permanent and adequately funded adult education initiative. Incentives for school districts to establish adult literacy projects should be provided, and action based research should be conducted.

The Literacy Coalition will serve as a major force in providing training and promoting communication amoung instructors. The Coalition aims to facilitate the development of programs throughout the state. Grassroots support for such programs should be in areas where peer tutoring is available and where instruction is provided close to the homes of the illiterate. Continued support for the Literacy Coalition should be obtained from multiple sources including: the Gaming Foundation, business groups, civic organizations, the U.S. Department of Education, LSCA, and United Way.

Professional organizations can serve as an important resource in terms of coordinating parent-child programs and providing teacher training, tutoring, and materials. Groups like NEA, NWP, NCTE, Sierra Reading Council have thought about adult literacy and have engaged in efforts to encourage literacy throughout the state.

Recruitment. Recruitment is directly related to resources. The heads of literacy initiatives statewide see recruitment as the most important issue they need to address. These directors also report that the most effective recruitment has come from television and radio advertising. Toll free numbers should

continue to be available for referral agencies. It would also be useful to supplement some of the more general nationally distributed advertisements with advertisements which feature local programs.

Recruitment efforts will improve as literacy instruction becomes more available. Distance to tutoring and child care are major factors which discourage many potential students. Therefore, programs should consider broad outreach initiatives which take the tutoring closer to home at convenient hours, and which feature child care and transportation assistance. In urban areas, store fronts could be sponsored with ongoing literacy activities. In the long run, word of mouth will become an effective source for recruiting students who will be involved in long-term tutoring.

Adults become involved in literacy instruction for a variety of reasons. For example, younger adult males tend to become involved when they preceive that instruction will improve their vocational prospects. Publicity efforts should highlight the students, control the tutoring in terms of setting short and long-term goals.

Every effort needs to be made to reduce the stigma attached to participating in a reading program. In fact, all adults can improve their literacy proficiency, and tutoring services should be available to anyone who wants to become more literate. A sizeable number of literate adults are aliterate; that is, they can read, but don't. Atrophy and retooling are certainly issues to consider. Recruitment and publicity efforts should try to make reading the latest fashion. The current national library theme, "The year of the Reader," should be utilized to promote adult literacy. Adult book clubs, discussion groups and vocational literacy programs should either continue their efforts or should be developed.

Libraries. The Nevada State Library and Archives has taken a leadership role in the area of adult literacy. These efforts need further support in terms of providing materials, facilities, and continued staffing to meet training and consulting needs and cordinate literacy efforts statewide. One of the major factors in a student persistence in literacy training programs is the distance to the facility. In all areas of the state libraries should be utilized as training and tutoring sites and should actively disseminate information on all community literacy activities both in rural and urban areas. The local library could be staffed with a teacher/trainer who has expertise in a recognized method of tutoring adult nonreaders.

Nevada libraries should make a concerted, coordinated effort to purchase more high interest, low vocabulary materials for adults, and increase publicity which highlights the attractiveness

and availability of materials suitable for adults enrolled in literacy programs. Libraries should also advertise their many services and programs of interest to the general public, and to literacy students and tutors. The statewide automated library network could be used to make materials available closer to students' homes in rural areas, and bookmobiles could deliver literacy materials and information to some rural areas in Pershing, Humboldt, Elko, White Pine, and Lincoln counties.

Finally, libraries should continue to promote literacy initiatives and coordinate literacy activities. Facilities for the centralized meetings discussed above can be provided by libraries statewide.

Materials. Interesting and readable materials for adults learning to read are difficult to obtain. There should be a major initiative in this state to obtain magazines and books which can be distributed to both tutors and students. Publishers should be contacted for donations, and grants should be secured which will provide funding for purchasing materials. Local television affiliates may be willing to provide closed-captioned television services to students on an experimental basis.

Students often serve as authors of reading materials either through dication, or their own writing. Tutoring programs have successfully published their own materials. The content has often involved personal histories which are quite relevant to other students. Businesses have had employees enrolled in literacy programs write and dictate accounts of their jobs and work routines, and they have found these accounts useful in training.

Writing instruction needs to be an integral part of literacy instruction. Tutors need to facilitate writing by encouraging a variety of opportunities and encouragement to write with clear purposes as felt by the student. Literacy programs should make paper, pencils and pens, envelopes and postage, address books, address references, and forms (i.e. application and request for information forms) readily available to students. Local newspaper publishers may be willing to donate subscriptions and day-old newspapers to students and programs.

Commitment to School-Age Children. To paraphrase Flannery O'Connor, reading and writing are both habits and like all good habits must be nurtured over a long period of time. Literacy is a family and community issue; parents and communities benefit from activites which encourage literacy. There have been a variety of community literacy activities which have encouraged the habits of reading and writing. The Coalition should work with community groups and businesses to encourage sponsorship of activities like readathons for fundraising, booksales, and family reading projects (cf. Shakey's).

Greater support statewide needs to be given to remedial, corrective, and above all, developmental literacy instruction. Few resources for funding special literacy classes at the middle and high-school levels are presently available. In addition, there needs to be closer coordination between ESL and literacy efforts for school-aged children.

Five-Year Plan. For any program to be successful, particularly one with the scope of the Nevada Literacy Coalition long-term goals must be set. There should be sustained financial and personnel support at the outset, but this support must ultimately be directed toward allowing local programs to effectively and confidently assume full administrative and tutorial responsibility. With this in mind, a realistic five-year plan for this undertaking is offered.

This first two years of the project will be supported by Gannett funding. The Coalition should support the charges outlined in the original grant proposal. This will allow the coordination and development of programs on a local level while providing whatever support may be desired from state and university personnel involved in the program.

The Coalition should develop local and state conferences where teachers have opportunities for sharing and training. The Director should work with other project personnel to effectively coordinate statewide efforts while maintaining the integrity of local programs. Business and community groups should be mobilized during the first two years. Towards the end of the first year, the Coalition should provide support to a variety of model programs to help them monitor progress. A newsletter for teachers sponsored by the Coalition should begin during the second year.

During the last three years, the Coalition may need to consider additional funding (e.g., the Gaming Foundation) for conferences to bring together workers from local programs. The Coalition should continue consultative support from project personnel (particularly from UNR and UNLV faculty and graduate assistants.)

A comprehensive program for helping volunteer organizations to monitor student progress should be in place. The progress of model programs should be publicized.

Annual goals of increases in the number of students receiving instruction should be established. The Coalition should be actively involved in helping volunteer organizations recognize students' achievements, and should be in the forefront in advocating greater public resources allocated for literacy instruction in Nevada.

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VIII. APPENDIX - A

POPULATION PARAMETERS 1-6/ BY COUNTY

	1	2	3	4	5	6
CHURCHILL	.69	4.46	2.42	3.10	.32	.22
CLARK	.58	2.92	2.82	3.01	.58	.38
DOUGLAS	.39	1.60	1.63	2.87	.05	.45
ELKO	1.32	3.48	3.00	2.86	.85	.37
ESMERALDA	-	2.37	3.47	3.10	.92	.00
EUREKA	.84	3.60	4.45	2.85	.29	.14
HUMBOLDT	1.34	3.67	2.90	2.98	.86	.15
LANDER	1.29	4.15	0.72	3.07	.52	.49
LINCOLN	0.91	3.54	3.29	2.79	.24	.16
LYON	0.65	3.76	3.00	3.31	.31	.27
MINERAL	1.21	4.99	3.52	2.97	.31	.17
NYE	0.69	3.52	3.25	3.16	.23	.20
PERSHING	1.79	4.31	3.18	3.16	1.06	.40
STOREY	0.53	1.73	2.08	2.95	.07	.68
WASHOE	0.50	2.33	2.09	2.77	.50	.36
WHITE PINE	0.50	3.62	3.06	3.03	.02	.31
CARSON CITY	0.37	2.33	3.41	2.94	.22	.18

1 1-4 YRS SCHOOL, 25+
2 5-8 YRS SCHOOL, 25+
3 9-11 YRS SCHOOL, 25+
4 12 YRS SCHOOL, 25+
5 IMMIGRANTS DURING 1970 - 1980, 20+
6 FOREIGN BORN IN 1970, 20+

BASED ON 1980 CENSUS
FOR NEVADA COUNTIES

APPENDIX - A (Cont.)

PARAMETERS 7-12 & ILLITERACY ESTIMATE/COUNTY

	7	8	9	10	11	12	EST
CHURCHILL	.26	.22	.08	.06	1.34	.43	10.2%
CLARK	.91	.52	.11	.71	.85	.35	10.3%
DOUGLAS	.29	.34	.08	.01	.94	.21	5.5%
ELKO	1.66	.78	.12	.02	.97	.42	12.5%
ESMERALDA	.64	.99	.07	-	1.08	.38	11.6%
EUREKA	.94	-	.10	-	1.00	.92	11.7%
HUMBOLDT	1.95	.80	.10	.04	.93	.52	12.8%
LANDER	2.84	.75	.11	-	.56	.55	11.7%
LINCOLN	.42	.32	.14	.04	1.35	.41	10.2%
LYON	.71	.30	.09	.01	1.30	.37	10.7%
MINERAL	.65	.39	.07	.56	1.28	.48	13.2%
NYE	.39	.23	.09	.05	1.09	.45	10.0%
PERSHING	2.77	.71	.10	-	1.32	.54	15.9%
STOREY	-	.17	.06	-	.89	.38	6.1%
WASHOE	.80	.45	.07	.16	.89	.27	7.8%
WHITE PINE	.46	.44	.14	-	1.27	.39	9.8%
CARSON CITY	.50	.30	.07	.15	1.05	.27	7.4%

7 ESL PERSONS WHO SPEAK ENGLISH LESS THAN WELL, AGE 18+
8 ESL PERSONS WHO SPEAK ENGLISH WELL, AGE 18+
9 ESL PERSONS WHO SPEAK ENGLISH VERY WELL, AGE 18+
10 BLACK PERSONS, AGE 20+
11 PERSONS, AGE 60+
12 PERSONS, AGE 22+ LIVING BELOW THE POVERTY LEVEL

*The decimals in the table are products of multiplying the regression coefficient by the percentage of the county's population for the category.

SURVEY: ADULT LITERACY PROGRAMS

STATE OF NEVADA, MAY 1987

Name of organization _____

Person(s) completing survey _____ Phone _____

****

Please respond to the various types of questions in terms of your Literacy Program for Adults.

1. Programs offered:
   - Basic Reading____ Basic Math_____
   - ESL____, GED____, Life Skills____
   - Other (specify)_____

2. Instruction;
   - Individual tutoring ____
   - Small group tutoring ____
   - Group instruction ____
   - Class instruction ____
   - Other_____

3. Methodology:
   - Structured (phonics base) ____
   - Language based ____
   - Eclectic ____
   - Competency ____

Comments:

4. How many students are currently in your program?

   Adult Basic Ed ___, ESL ___, GED ___, Other ___

5. How many hours a week do students spend in your programs?

   Adult Basic Ed ___, ESL ___, GED ___, Other _____

6. What is the average length of time (in hours) that a student stays in your program?

   ABE ___, ESL ___, GED ___, Other_____

7. How many students did you serve in 1986?

   ABE ___, ESL ___, GED ___, Other _____

8. How many adults are currently on your waiting lists?

   ABE ___, ESL ___, GED ___, Other_____

9. On an average, how many students were on your waiting list in 1986? (at any given time)

   ABE ___, ESL ___, GED ___, Other _____

		Personnel	Avg hrs/week/ per person
10. How many people currently work in your program?	Supervisor(s)	____	____
	Teachers Full Time	____	____
	Teachers Part Time	____	____
	Volunteer Tutors	____	____
	Others	____	____

11. Do you provide training for your volunteer tutors:

    Yes ____ No ____ Hours of training ____

    Type of training:_____

    How many have been trained in the past year? _____

12. How many students do you currently have in the following classifications? (optional)

Employed	____	Hispanic	____	HS Graduated	____
Unemployed	____	Black	____	Non HS Graduates	____
Male	____	Amer Ind	____		
Female	____	Asian	____		
		White	____		

Open-Ended Questions (Use attachments as necessary)

13. Recruiting. How do most of your students come to you?

14. Please describe your testing program? (Formal, informal testing, diagnostic, assessment, etc.)

15. How do you establish long and short-range goals for your students?

16. Which instructional materials do you use principally? (Publisher, series, student generated, work related, etc.)

17. How would you describe your counseling program? (Counseling is used in a broad sense and includes, for example, the ways that a teacher or tutor helps the student in personal ways--self-concept improvement, motivation, personal problem solving, etc. Also include counseling done by director, professional counselors, etc.)

18. What information do your have of the success of your program? (Test gain scores, passing GED or other tests, gaining employment or promotion as a result of increased literacy, increased self-esteem and self-confidence for students, etc.)

19. Do you screen people who volunteer for tutoring? If so, what criteria/methods do your use?

20. Who provides financial support for your literacy program?

21. What facilities do you use for your program? (Schools, churches, homes, etc.)

22. At what times is your literacy instruction offered?

23. What first-hand knowledge do you have that employers want job <u>applicants</u> who have better reading and/or math skill?

24. What first-hand knowledge do you have that employers want <u>current</u> employees to have better reading and/or math skills?

25. What non-instructional services do you provide for your students? (Childcare, transportation, etc.)

<u>Needs List</u>

1 not needed
2 some need
3 moderate need
4 strong need
5 very strong need
N/A not appicable
DK don't know

Please circle one response for each statement

26. More effective ways to reach adult illiterates who are out there.	1	2	3	4	5	NA	DK
27. Additional training for volunteer tutors	1	2	3	4	5	NA	DK
28. Additional full-time professional teachers	1	2	3	4	5	NA	DK
29. Additional materials of the type currently being used	1	2	3	4	5	NA	DK
30. Better instructional materials	1	2	3	4	5	NA	DK
31. Ways to keep students in the program for a longer period of time	1	2	3	4	5	NA	DK

32.	Locate tutors who are the same age, sex, ethnic origin as students	1	2	3	4	5	NA	DK
33.	Closer ties with other organizations concerned with literacy (schools, libraries, literacy groups, employers, etc.)	1	2	3	4	5	NA	DK
34.	Better tests of functional literacy	1	2	3	4	5	NA	DK
35.	Financial support	1	2	3	4	5	NA	DK
36.	Better facilities	1	2	3	4	5	NA	DK
37.	Additional volunteers	1	2	3	4	5	NA	DK

Other Needs:

Other Organizational and Literacy Concerns

38. Which part(s) of your program are you/most pleased with?

39. Which part(s) are most in need of improvement?

40. What are your short and long-range organizational goals?

41. The Literacy Coalition will be sponsoring a statewide literacy conference. Would you or members of your staff be interested in attending such a conference? Yes _____ No _____
If yes, how many people from your group might attend? _____

42. The University of Nevada-Reno has been contracted by the Literacy Coalition to run a two-day training workshop prior to the statewide conference. Stipends will be available to participants. Would you or members of your staff be interested in attending this workshop? Yes _____ No _____ If yes, how many people from your group might attend ? _____

43. This survey has been mailed to the following literacy groups. Who have we missed?

Assault on Illiteracy Programs
Willa Bywater

Clark County CC, ABE,
Val Garner

Clark County CC, Developmental Education, Richard Nuzzo

Clark County School District
Adult Education Programs,
Dr. L. Scott Chalfant

Computer Assisted Literacy in Libraries, Nancy French

Lahotan Valley Literacy Volunteers, Dora Witt

Northern Nevada Literacy Council, Loa Jones

Organization in Language and Arts, Vel Loving

READ: Volunteer Literacy Services of Southern Nevada, Joy Saville

Truckee Meadows CC, ABE & ESL, Karen Riordan

UNR, Reading and Learning Disabilities Center,
Dr. Shane Templeton

UNLV, Reading Center and Clinic, Adult Learning Center,
Dr. Judy Dettre

Literacy Council of Las Vegas, Jackie Wiedemann

Nevada Association of Latin Americans, Dr. A. Almeida

Northern Nevada CC, ABE Dr. Charles Greenhaw

UNLV, English as a Second Language, Dr. Stephen Duffy

Washoe High School, ABLE and ESL Janice Nichols

Western Nevada CC, ABE, Jacquie Grose

Other Organizations:

SURVEY: ADULT LITERACY PROGRAMS

STATE OF NEVADA, MAY 1987

School District _____

Person(s) completing survey _____ Phone _____

****

Please provide information for the items that follow for your district-sponsored adult education literacy programs and selected items on your school reading program.

ADULT EDUCATION (SCHOOL DISTRICT SPONSORED)

1. Programs offered:
   - Adult Basic Education _____
   - ESL _____
   - GED _____
   - Other _____

2. Current Enrollment
   - Adult Basic Education _____
   - ESL _____
   - GED _____
   - Other _____

3. Enrollment During 1985-86
   - Adult Basic Education _____
   - ESL _____
   - GED _____
   - Other _____

4. Average Length of Enrollment (hours) Per Student
   - Adult Basic Education _____
   - ESL _____
   - GED _____
   - Other _____

5. Please comment on these programs in terms of testing, materials, used criteria for completion, recruiting, etc. (Please use separate sheet if more space is needed.)

6. At what reading level do students enter these programs? On the average, what reading gain scores do they achieve during the program?

SCHOOL READING PROGRAMS

7. Do you provide developmental, corrective, and/or remedial reading programs in your middle schools and high schools? Please list enrollment in boxes below if programs are in separate classes.

	DEVELOPMENTAL Y/N	CORRECTIVE Y/N	REMEDIAL Y/N
MIDDLE SCHOOL			
HIGH SCHOOL			

8. Please comment on the above programs in terms of materials, approaches, criteria for remedial reading, etc. (Use separate sheet if more space is needed.)

9. The Literacy Coalition will be sponsoring a statewide literacy conference. Would you or members of your staff be interested in attending such a conference? Yes___, No___. If yes, how many people from your district might attend?____

10. The University of Nevada-Reno has been contracted by the Literacy Coalition to run a two-day training workshop prior to the statewide conference. Stipends will be available to participants. Would you or members of your district be interested in attending this workshop? Yes___, No___. If yes, how many people might attend?____

NEEDS SECTION

11. In the area of **Adult literacy**, what are the greatest needs in your county? Consider such matters as providing literacy services to non-native speakers of English, meeting requirements of employers (for job applicants as well as current employees). GED, assisting adults to reach functional literacy, etc.

12. In your judgement, what are the best ways to meet the needs identified above? (e.g., expanded ABE programs, formation or expansion of volunteer programs, greater participation in existing programs).

13. Though school programs typically bear the brunt of literacy shortcomings of graduates and non-graduates, the situation is complicated by the correlation of literacy achievement with home environment (including educational level of parents and availability of reading materials in the home), socio-economic levels, race, increased standards for what constitutes literacy and other factors that influence school literacy, achievement. These factors do not, of course, excuse any school from doing the best possible job, but they do put a realistic perspective on the challenges.

    With this preface, what do you see as the best ways to improve **school reading programs?** (e.g., smaller classes, more=or better=training for new teachers, more=or better=in=service training, alternative schooling).

14. Are you aware of other adult literacy programs in your community? (See attachment for list of organizations already identified.)

Assault on Illiteracy Programs
Willa Bywater

Clark County CC, ABE,
Val Garner

Clark County CC, Developmental
Education, Richard Nuzzo

Clark County School District
Adult Education Programs,
Dr. L. Scott Chalfant

Computer Assisted Literacy
in Libraries, Nancy French

Lahotan Valley Literacy
Volunteers, Dora Witt

Literacy Council of Las
Vegas, Jackie Wiedemann

Nevada Association of Latin
Americans, Dr. A. Almeida

Northern Nevada CC, ABE
Dr. Charles Greenhaw

Northern Nevada Literacy
Council, Loa Jones

Organization in Language and
Arts, Vel Loving

READ: Volunteer Literacy
Services of Southern Nevada,
Joy Saville

Truckee Meadows CC, ABE & ESL,
Karen Riordan

UNR, Reading and Learning
Disabilities Center,
Dr. Shane Templeton

UNLV, Reading Center and
Clinic, Adult Learning Center,
Dr. Judy Dettre

UNLV, English as a Second
Language, Dr. Stephen Duffy

Washoe High School, ABLE and
ESL Janice Nichols

Western Nevada CC, ABE,
Jacquie Grose

Other Organizations:

NEVADA'S LITERACY EDUCATION PROGRAMS

A Status Report

Prepared by the Nevada Department of Education

I. Literacy Defined

"Using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential."

Skills or proficiencies included are:

reading and interpreting prose, as in newspaper articles, magazines, and books;

identifying and using information located in documents such as forms, tables, charts, and indexes; and

applying numerical operations to information contained in printed material such as a menu, a checkbook, or an advertisement.

II. The Problem

Using the Measure of Adult English Proficiency (MAEP), the U. S. Department of Education conducted a national sample testing of 3,400 adults. Based on test results, Nevada was reported to have an illiteracy rate of 9% (9% of the adult population over 20 years of age). This data suggests Nevada has an illiterate population of between 50,000 and 65,000. Because of migration of refugees and other immigrants in Nevada, we feel this is a conservative number.

III. Current Programs to Meet Literacy Needs

A. Adult Basic Education
P.L. 91-230
Adult Education Act, as amended

Federal Funding = $465,000

1. Programs of Instruction

The Department of Education awarded four subgrants in FY 1986-87 under the Adult Basic Education program. These programs serve adults who have an achievement level in reading and math of less than 6.0. The following chart depicts the subgrantee agencies, their funding levels for FY 1986-87, and the estimated number of students to be served by each agency:

IV. FUTURE PROGRAM CONSIDERATIONS

There seems to be agreement among professionals that functional illiteracy is a grave problem facing our nation and one that affects the home, the workplace, and communities at large.

Formal education has played such a minor role in the lives of adults, it seems apparent that any resolution of the issue must hinge on a cooperative, cohesive effort between public education, private education, and the business and industrial communities.

Public education ought to:

A. Assist in the increase of the number of community based volunteer programs;

B. Serve as facilitator in the promotion and development of literacy programs for youth and adults;

C. Promote parent or child reading programs that can increase community awareness of the importance of reading and assist the undereducated to develop reading skills;

D. Support special partnerships between public libraries and school programs to provide supplemental reading programs and materials acquisitions for the economically disadvantaged; and

E. Adopt the notion that public education needs community assistance to meet the literacy needs of youth and adults, including assistance from parents and volunteers in providing such supplemental instruction.

Developed by:
Jerry Nielsen
3/3/87

SUBGRANTEE	PROJECTED # OF STUDENTS SERVED	FY 1987-87 FUNDING
Clark County Community College	1,400	$ 196,503
Northern Nevada Community College	285	27,500
Truckee Meadows Community College	700	89,000
Western Nevada Community College	220	42,000
Totals	**2,605**	**$ 355,003**

FY 1985-86 Program Data:

Cost Per Pupil/Programs of Instruction	$ 184.29
Cost Per Pupil/Instructional Hour	$ 2.60
Total Number of Instructional Hours	120,310
# of Hours of Instruction Per Student	66.95

2. Special Teacher Training and Demonstration Projects

a. Special Demonstration Project

A Special Demonstration Project is one that includes an innovative and/or exemplary adult education program practice. This practice can be related to the development of a product or process in educating adults. The project will try out, show or indicate use of methods or practices in adult education.

Clark County Community College and the Literacy Council of Las Vegas were granted a special demonstration project for FY 1986-87 to assist the Literacy Council of Las Vegas in providing an effective volunteer tutor training program and develop the organization's capacity to provide countywide student tutorial services with trained volunteers.

Clark County Community College and Literacy Council of Las Vegas subgrant $45,000

b. Teacher Training Project

A Teacher Training Project is one that seeks to improve the professional competence of Adult Basic Education teachers, teacher aides, administrators, counselors, and other professional staff who function in Adult Basic Education. It is a program of professional staff development for adult education staffs.

Truckee Meadows Community College has been granted funds to conduct two adult teacher training activities--one for local Adult Basic Education staff and the other to meet statewide staff training needs.

Truckee Meadows Community College/Local Teacher Training Project	**$ 5,000**
Truckee Meadows Community College/Statewide Teacher Training Project	**$13,000**

Total of all FY 1986-87 subgrant allocations for literacy programs	$418,003

B. Volunteer Organizations

The Northern Nevada Literacy Council and the Literacy Council of Las Vegas are the two major volunteer literacy organizations in the State. The Department's subgrantees work directly with each of these councils. A symbiotic relationship exists in such efforts as:

1. staff training (tutors, teachers, counselors);

2. provision of instruction in the same centers and for persons who need one-on-one instructional programs; and in

3. referral of students.

The literacy councils will serve approximately 700 students during this fiscal year. There will be over 150 tutors trained to provide instructional services in English as a second language and basic reading and writing.

C. Adult High School Diploma Program

Clark and Washoe counties provide limited instructional services to adults who have limited acquisition of the basic skills. There will be approximately 300 to 400 adults who enroll in high school diploma programs who, because of a lack of basic skill achievement, will require and receive remediation at a level that would classify them as illiterate.

Appendix E
Recommendations, Initiatives and Resources

In tandem with the Executive Summary, the following recommendations from the full report serve as a quick synopsis of Project TACL. Following each recommendation, potential resources have been suggested. Though not all recommendations concern the Coalition directly, the Coalition can advocate for all of the initiatives entailed in the recommendations.

The potential resources have been defined broadly. For example, Libraries include state and local systems, and for the Department of Education, their initiatives may require the support of the Governor and Legislature.

The letters in the left-hand margins denote the function of the recommendations, and are keyed in this way:

R Research;
r recrutiment;
P Program development;
T Training;
F Funding;
M Material.

Appendix E

(P,R) 1. Adult literacy programs must be designed to provide long-term instruction to students reading at a variety of reading levels. Benefits should not be tied to simple measures of achievement. A realistic proposal must include a long-term investment and commitment.

Coalition
Volunteer groups
ABE
School Districts
Department of Education

(T) 2. Students must not only be trained to read words, they must be trained to think while they read and that often involves thinking in new ways about new subjects.

Coalition
Volunteer groups
School Districts
ABE
Department of Education

(R) 3. Volunteer organizations and educational institutions should keep careful records of their student's progress. Progress should be examined to make it possible to see what types of students (i.e. grade level, and social background) benefit from particular types of instruction. Informal measures including self-assessments and goal setting, should be included in the measures of achievement.

Coalition
Volunteer groups
School Districts
ABE

(R) 4. Volunteer programs should be examined to see who is attracted to particular types of programs both in terms of students and tutors. Such studies should be longitudinal in scope. Progress should be tracked in terms of specific needs over time.

Coalition
Volunteer groups
School Districts
ABE
Department of Education

(R) 5. Programs should consider broad outreachinitiatives which take the tutoring closer ot home at convenient hours, and which feature child care and transportation assistance. In urban areas, store fronts could be sponsord with ongoing literacy activities.

Community Colleges
University Centers
Department of Education
Coalition
Volunteer groups
School Districts

ABE
Department of Education

(F,P) 6. Greater support statewide needs to be given to remedial, corrective, and above all, developmental literacy instruction. In addition, there should be closer coordination between ESL and literacy efforts for school-aged children.
Coalition
Volunteer groups
School Districts
ABE
Department of Education

(P,F) 7. Long-term goals must be set. There should be sustained financial and personnel support at the outset, but this support must ultimately be directed toward allowing local programs to effectively and confidently assume full administrative and tutorial responsibility.
Coalition
Volunteer groups
School Districts
ABE
Department of Education

(R) 8. Basic research is needed in a variety of areas ranging from reading proficiency to program development. How is adult literacy development different from younger students' development? What is the rate of vocabulary acquisition of adults? What are the characteristics of an effective program? How much of an investment is necessary to effect change?
Community Colleges
University Centers
Department of Education

(R) 9. The concept of literacy proficiency should be studied. Techniques for measuring proficiency need to be developed, and the levels of proficiency necessary for employment need to be determined.
Community Colleges
University Centers
Department of Education

(R) 10. More research is necessary to delineate the relationship between student needs and the full range of literacy activities.
Community Colleges
University Centers
Department of Education

(R) 11. Programs in a variety of locations should be studied carefully. The Literacy Coalition my want to concentrate on three or four exemplary programs around the state. These programs should be studied to see who is attracted, how long the participants stay in the program, and what sorts of gains are realized.
Coalition

(F,P) 12. Programs which rely solely on volunteers and temporary funding need to be examined.
Coalition

(T) 13. The National Writing Project has established an excellent model for teacher training and over two thousand teachers have been trained through the Nevada Writing Project and its affiliates. The strengths of this model should be examined by the Coalition, and tutors should be encouraged to participate in the Open sessions sponsored by the Nevada Writing Projects.
Coalition

(P,T) 14. The Literacy Coalition should serve as a major force in providing training and promoting communication among instructors, and facilitate the development of programs throughout the state. Programs should be in areas where peer tutoring is available and where instruction is provided close to the homes of the illiterate.
Coalition

(F) 15. Continued support for the Literacy Coalition should be obtained from multiple sources including: the Gannett Foundation, the U.S. Department of Education, LSCA, the Gaming Foundation, business groups, civic organizations, and United Way.
Coalition

(R) 16. Toll free numbers should continue to be available for referral agencies. It would be useful to supplement some of the more general nationally distributed advertisements with advertisements which feature local programs.
Coalition

(R) 17. Publicity efforts should highlight the students' control over the tutoring in terms of setting short and long-term goals.
Coalition

(P,R) 18. Every effort should be made to reduce the stigma attached to participation in a reading program.
Coalition

(R) 19. Recruitment and publicity efforts should try to make reading the latest fashion. The current national library theme, "The Year of the Reader," should be utilized to promote adult literacy. Adult book clubs, discussion groups and vocational literacy programs should either continue their efforts or should be developed.
Coalition
Libraries

(P) 20. The first two years of the project will be supported by Gannett funding. The Coalition should support the charges outlined in the original grant proposal.
Coalition

(T) 21. The Coalition should develop local and state conferences where

teachers have opportunities for sharing and training. The Director should work with other project personnel to effectively coordinate statewide efforts while maintaining the integrity of local programs.

Coalition

(T,P) 22. A newsletter for teachers sponsored by the Coalition should begin during the second year.

Coalition

(F) 23. The Coalition may need to consider additional funding (e.g., the Gaming Foundation) for conferences to bring together workers from local programs.

Coalition

(P,T,R) 24. The Coalition should continue consultative support from project personned.

Coalition

(P,R) 25. Annual goals of increases in the number of students receiving instruction should be established. The Coalition should be actively inyolved in helping volunteer organizations recognize students' achievements, and should be in the forefront in advocation greater public resources allocated for literacy instruction in Nevada.

Coalition

(T) 26. Professionals and paraprofessionals need to be better trained to handle the demands of teaching adults to read, particularly at the lower levels. They need to understand the developmental needs of their students and they need to see the connections between reading, writing, and spelling development and instruction.

Community Colleges
University Centers
Department of Education
Coalition

(T) 27. The Director of the Coalition should continue to organize instructional sessions for tutors and trainers. "Centralized" conferences con-sponsored by local tutoring programs and the Coalition will be an important feature in on going training. In these conferences, equal time should be allowed for specific training by professionals and communication and sharing among tutors.

Community Colleges
University Centers
Department of Education
Coalition

(R,T) 28. The qualities of effective volunteers need to be studied. What are the levels of proficiency necessary for successful tutoring?

Community Colleges
University Centers

Department of Education
Coalition

(T) 29. Ongoing teacher training programs will be most successful if they help tutors with specific cases. Contextualized teaching using a case study approach is important.

Community Colleges
University Centers
Department of Education
Coalition

(T) 30. Audiovisual materials on effective teaching behaviors should be available for tutors. These should include lessons on diagnostic teaching techniques, organizing instruction, and activities which make the link between reading and writing devlopment.

Community Colleges
University Centers
Department of Education
Coalition

(T) 31. There are a variety of training programs already in existence in the state which should be consulted. The Colleges of Education have developed clinical experiences for teachers who want to learn how to teach remedial and corrective readers. In addition, the Colleges of Education offer a variety of useful courses on literacy proficiency at all academic and age levels.

Community Colleges
University Centers
Department of Education
Coalition

(P) 32. At least one third of adult students had consistent feeling of failure in their previous school experience. Tutors need to be trained to deal with these negative feelings. They need to be trained to help students set realistic, short and long-term goals, and to help students gauge their progress. Small group interaction is often useful in easing anxieties, tutors need to be trained in techniques for facilitationg peer group discussions and tutoring.

Community Colleges
University Centers
Department of Education
Coalition

(M) 33. Tutors need to facilitate writing by encouraging a variety of opportunities and encouragement to write with clear purposes as felt by the student. Literacy programs should make papere, pencils and pens, envelopes and postage, address books, address references, and forms (i.e. application and request for information forms) readily available to students.

Community Colleges
University Centers
Department of Education
Coalition

(F) 34. The state is not funding adult literacy at an adequate level. The state should take a more active role in developing a permanent and adequately funded adult education initiative. Incentives for school districts to establish adult literacy projects should be provided, and action based research should be conducted.

State Funding

(PTRM) 35. The role of libraries in thearea of adult literacy need further support in terms of providing materials, facilities, and continued staffing to meet training and consulting needs and coordinate lilteracy efforts statewide. Nevada State Library and Archives should continue to provide leadership for lilteracy activities.

Libraries

(P&M) 36. All areas of the state libraries should be utilized as training and tutoring sites, and they should actively disseminate information on all community literacy activities both in rural and urban areas.

Libraries

(T) 37. The local library could be staffed with a teacher/trainer who has expertise in a recognized method of tutoring adult nonreaders.

Libraries

(M) 38. Nevada libraries should make a concerted, coordinated effort to purchase more high-interest, low-vocabulary materials for adults and increase publicity which highlights the attractiveness and availability of materials suitable for adults enrolled in literacy programs.

Libraries

(R) 39. Libraries should advertise their many services and programs of interest to the general public, and to the literacy students and tutors.

Libraries

(M) 40. The statewide automated library network could be used to make materials available closer to students' homes in rural areas, and bookmobiles could deliver literacy materials and information to some rural areas in Pershing, Humboldt, Elko, White Pine, and Lincoln counties.

Libraries

P,T,R) 41. Libraries throughout Nevada should continue to promote literacy initiatives and coordinate literacy activities. Facilities for the centralized meetings can be provided by libraries statewide.

Libraries

(M) 42. There should be a major initiative in this state to obtain magazines and books which can be distributed to both tutors and students. Publishers should be contacted for donations, and grants should be secured which will provide funding for purchasing materials.

Libraries

(P,T) 43. Parents of pre-schoolers and school-aged children need to become aware of literacy activities for the home. A number of cooperative initiatives between adult and primary programs should be undertaken. For example, as part of literacy instruction adults can practice reading children's books to read to their children. Working from the other direction, shool-aged children can be trained to read to their parents and primary teachers can develop activities which will benefit both parents and their children.

Schools
Coalition
Teacher Organizations
Volunteer groups

(P,T) 44. High School, college and university students could become involved in literacy instruction. Peer tutoring models which have been used in public schools should be explored.

Schools
Coalition
Teacher Organization
Volunteer groups

(T) 45. Conferences should increasingly involve elementary, middle, and secondary teachers as well as state and school district officials.

Schools
Coalition
Teacher Organizations
Volunteer groups

(P) 46. A variety of sources need to be more actively involved in providing literacy instruction. Employers need to see that literacy instruction can imporve productivity and morale. Employers should consider providing lunch-break literacy instruction or offer stipends (for transportation, materials and fees) to employees who are studying in established literacy programs.

Employers
Coalition
Community groups

(P) 47. Community groups need to be more involved in literacy initiatives. Church groups in particular may be effective in serving individuals in their congregation.

Employers
Coalition
Community groups

(P,T) 48. Collaborative learning projects should be developed both at the program level among business, school and community groups, and on an instructional level among teachers for training, and students for support.

Employers
Coalition

Community groups

(P) 49. The Coalition should work with community groups and businesses to encourage sponsorship of activities like readathons for fundraising, booksales, and family reading projects.

Employers
Coalition
Community groups

(P) 50. Business and community groups should be mobilized during the first two years.

Employers
Coalition
Community Groups